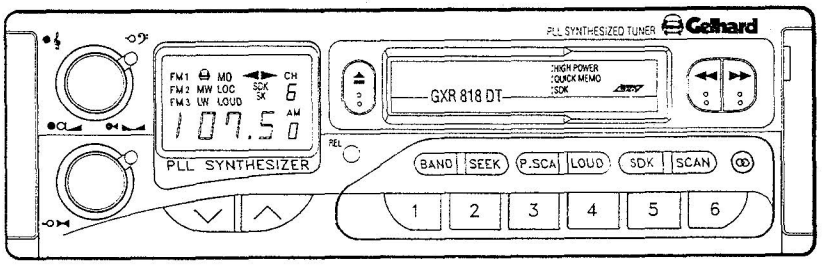
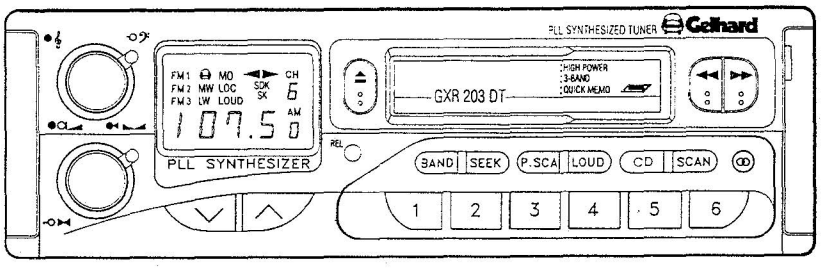
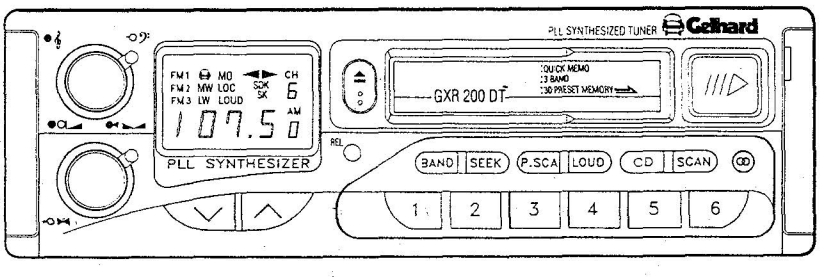
SERVICE MANUAL

GXR 200DT GXR 203 DT
GXR 818 DT

Stereo car radio cassette player







Gelhard®
Germany

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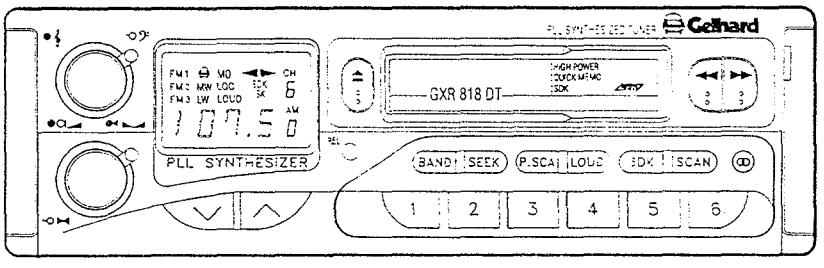
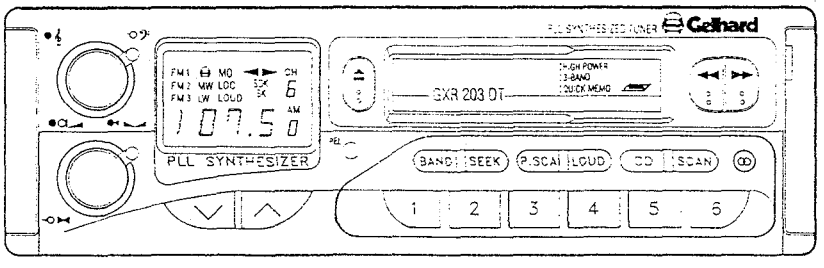
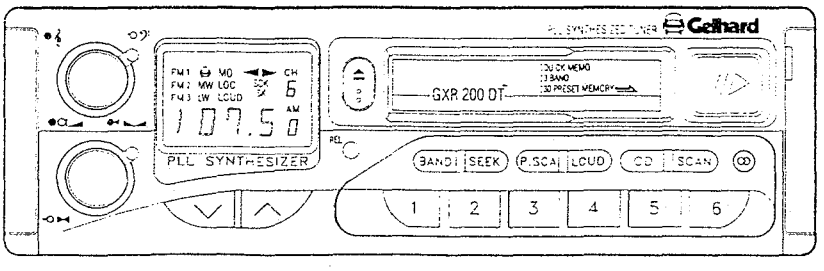
SERVICE MANUAL

GXR 203 DT

Stereo car radio cassette player







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SPECIFICATIONS

GENERAL Section

Power Supply	14.4Volts
Ground Polarity	Negative (-)

MW Section-GXR200, 203DT

	Description	Unit	Nominal	Limit
1.	Frequency range	kHz	522-1620	
2.	Intermediate Frequency	kHz	450	
3.	Sensitivity (S/N 20dB at 999KHz)	dBu	27	35
4.	S/N with 5mV input at 999KHz	dBu	50	45
5.	distortion at 500mW input 5mV	%	1.0	2.0
6.	Seek Sensitivity Distance Local	dBu	30 38	±10 ±10

LW Section-GXR200, 203DT

	Description	Unit	Nominal	Limit
1.	Frequency range	kHz	144-290	
2.	Intermediate Frequency	kHz	450	
3.	Sensitivity (S/N 20dB at 208KHz)	dBu	35	40
4.	S/N with 5mV Input at 208KHz)	dBu	50	45
5.	distortion at 500mW input 5mV	%	1.0	2.0
6.	Seek Sensitivity Distance Local	dBu	30 50	±10 ±10

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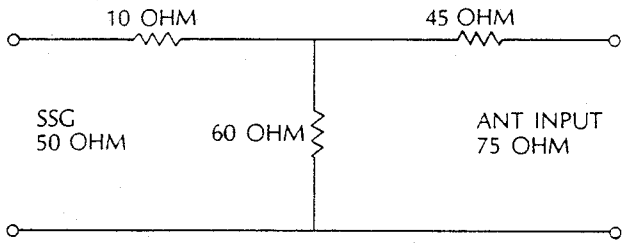
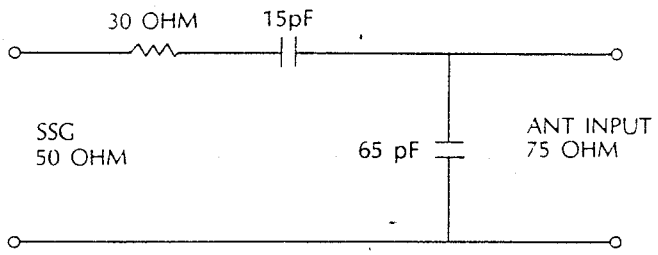
TAPE Section

	Description	TEAC Test Tape	Unit	Nominal	Limit
1.	S/N ratio NR off	MTT-112BN	dB	50	40
2.	Crosstalk at 1000Hz	MTT-121N	dB	50	40
3.	Channel Separation at 1000Hz	MTT-141N	dB	40	30
4.	Playback Freq. Response	MTT-257C .	Hz	40~15000	60~10000
5.	Wow & Flutter Weighted	MTT-111N	%	0.25	0.35
6.	Distortion at 1000Hz	MTT-111N	%	0.5	2
7.	Power Output at 1000Hz (GXR 203, 818DT) 10% distortion	MTT-112BN	W	2x12 4x14	2x10 4x12
8.	Gain Ratio Tape: MTT-112BN FM: 98MHz, 1000Hz 22.5KHz Dev, 1mV att AM: 999KHz, 400Hz 30% Mod, 5mV ATT	MTT-112BN	 dB dB dB	 +5 0 0	 +3~+7 0 ± 1
9.	Power output at 1000Hz (GXR 200DT) 10% distortion	MTT-112BN	W	2x4.5	2x4

FM DUMMY ANTENNA



AM DUMMY ANTENNA



FM Section-GXR200, 203, 818DT

	Description	Unit	Nominal	Limit
1.	Frequency Range	MHz	87.5-108	
2.	Intermediate Frequency	MHz	10.7	
3.	Sensitivity for 30dB S/N at 98MHz	dBu	6	12
4.	IF Rejection at 98MHz	dBu	60	50
5.	Image rejection at 98MHz	dBu	50	35
6.	S/N with 1mV input at 98MHz	dBu	50	40
7.	Distortion at 500mV	%	0.2	1
8.	Seek Sensitivity Distance Local	dBu dBu	15 35	± 5 ± 5
9.	Freqency Response (50Us, -3dB)	Hz	50~17000	80~13000

FM Stereo Section-GXR200, 203, 818DT

	Description	Unit	Nominal	Limit
1.	Separation with 1mV input at 1000Hz	dBu	30	25
2.	SNC (10dB separation) 98MHz	dBu	38	32~44
3.	Stereo Indicator Sensitivity	dBu	10	18

TRAFFIC DECODER (SK+BK+DK) Section-GXR818DT

	Description	Unit	Nominal	Limit
1.	Traffic Indicator Sensitivity (98 MHz)	dBu	20	25
2.	Traffic Decoder Lock Level at 98MHz	dBu	25	25
3.	DK Level at Volume Minimum Position	mV	400	300~500

FM seek sense	98.1 MHz 22.5 KHz DEV 1 KHz MOD 35 dB RF input level	Local	1. Adjust VR101 to be for the one touch seek button
	98.1 MHz 22.5 KHz DEV 1 KHz MOD 15 dB RF input level	Distance	1. Adjust VR101 to be for the two touch seek button
SK DK	98.1 MHz 22.5 KHz DEV. 1 KHz MOD. 19 KHz (10%) Pilot 57 KHz (5.3%) SK 30% DK 1 mV (60dB) RF input level	57 KHz (SK)	1. No adjust
		(DK)	1. Connect the one lead of freq. Counter through the 100k to the TP4 and ground the other 2. Adjust VR801 for 125 Hz ± 1 Hz
		Volume minimum level	1. Adjust VR802 of MAIN PCB for 300-700mV in the state of volume minimum
FM STEREO Noise Control GXR818DT	98.1 MHz 75 KHz DEV 1 KMz MOD 19 KHz (10%) Pilot 1m V (30d)	SNC	1. Adjust VR102 for channel seperation 3 dB

Ⅱ. TAPE SECTION

A) HEAD AZIMUTH ALIGMMENT

Make playback for the azimuth tape (MTT-113N, 6.3KHz) and turn each azimuth-adjusting screw to make REW (SCREW) MAX.
After adjustment make adhension the bond. <Fig 4>

ALIGNMENT PROCEDURES

I. RADIO SECTION

1. MW, LW ALIGNMENT

DO NOT NECESSARY TO ANY CONTROL

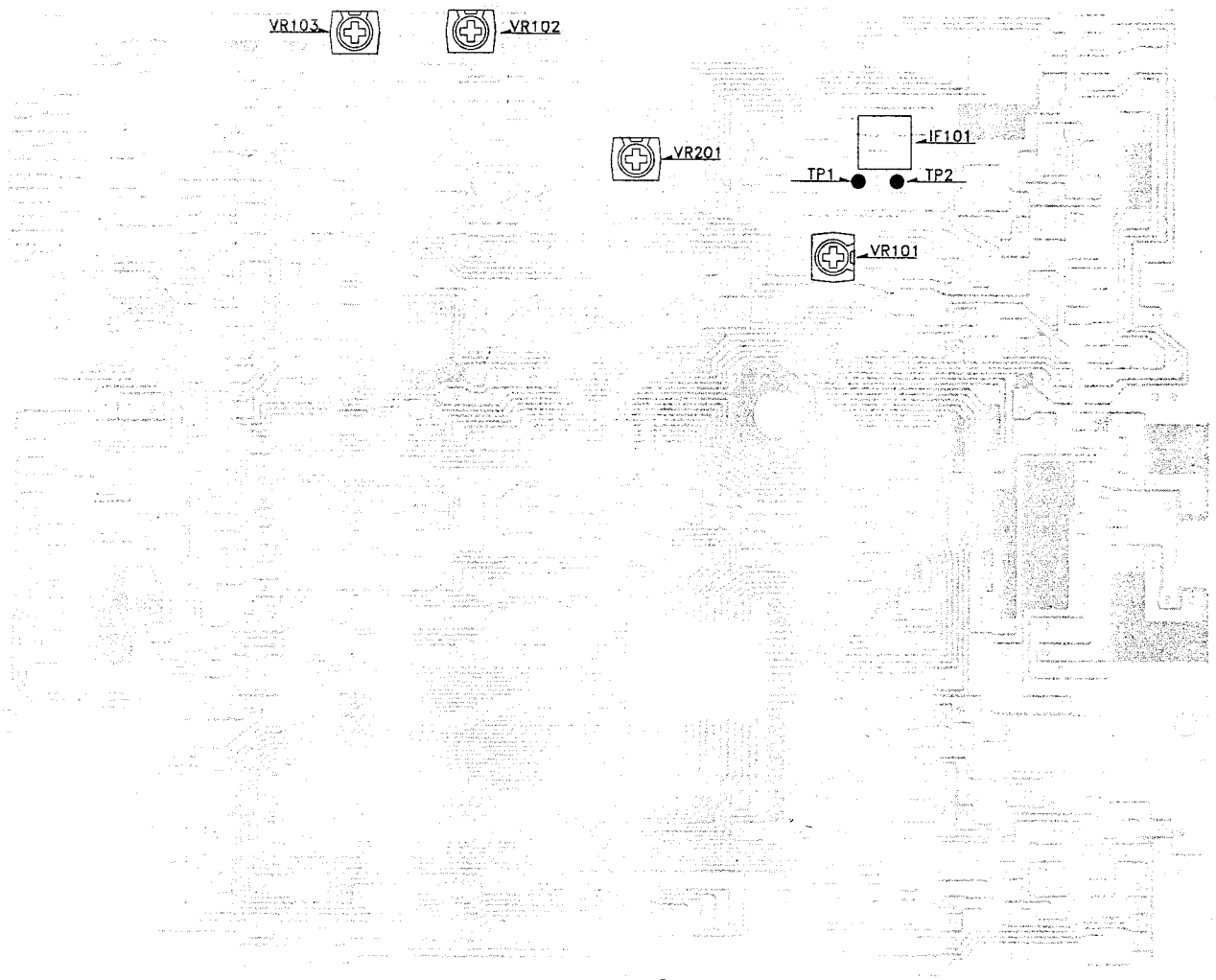
2. FM ALIGNMENT

* Equipment Required

a. AF MILLIVOLT METER (V.T.V.M)
b. STABILIZED POWER SUPPLY
c. OSCILLOSCOPE
d. MW SIGNAL GENERATER
e. DC VOLT METER
f. STEREO SIGNAL MODULATOR
g. TRAFFIC DECODE SIGNAL MODULATOR
h. FREQUENCY COUNTER

EVENTS	CONDITIONS	ADJUST POINT	ADJUST METHOD
FM IF	98.1 MHz 22.5 KHz DEV. 1 KHz MOD. 1 mV (60dB RF input level		1. Tune the set & ssg to 98.1 MHz 2. Connect the voltmeter to TP1 (pin 7) & TP2 (pin 13) of the IC101 (LA1140) 3. Adjust FM detector coil (IF101) for 0 ± 0.05V
MPX GXR 200,203DT	98.1 MHz 22.5 KHz DEV. 1KHz MOD. 19 KHz (10%) Pilot 1mV (60dB RF input level	19KHz	1. Set off the pilot 2. Connect the one lead of freq. Counter through the 100K to between the IC130 (LA3370) pin 13 and ground the other (GND) 3. Adjust VR103 for 19KHz ± 50Hz
		Pilot cancel & seperation	1. Set on the pilot 2. Confirm the seperation 3. Adjust VR102 of mpx module for minimum noise of the other side channel of the signal
MPX GXR818DT		19 KHz	1. Set off the pilot 2. Connect the one lead of freq. Counter through the 100K to between the IC130 (LA3370) pin 13 and ground the other (GND) 3. Adjust VR902 for 19KHz ± 50Hz
		Pilot cancel & seperation	1. Set on the pilot 2. Confirm the seperation 3. Adjust VR901 of mpx module for minimum noise of the other side channel of the signal

ADJUST POSITION(GXR-200DT)



MEASUREMENT SECTION

Fig 1

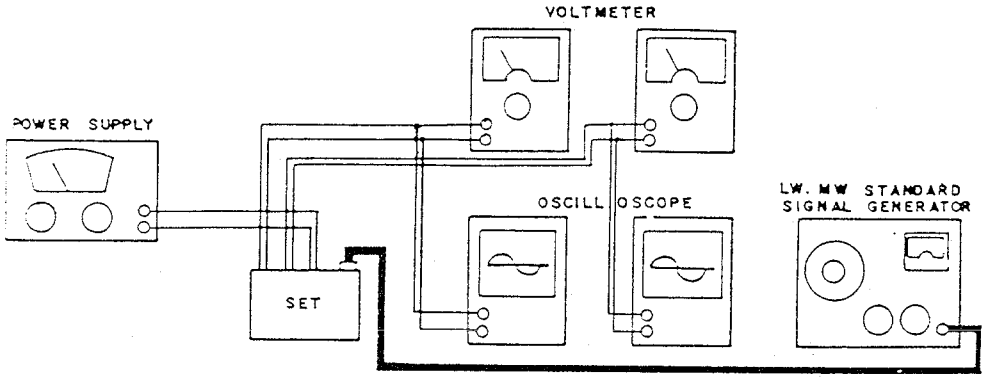


Fig 2

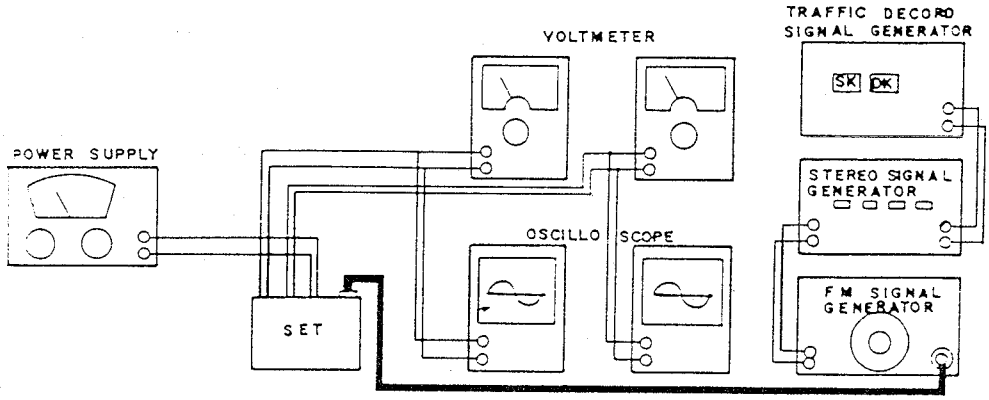


Fig 3

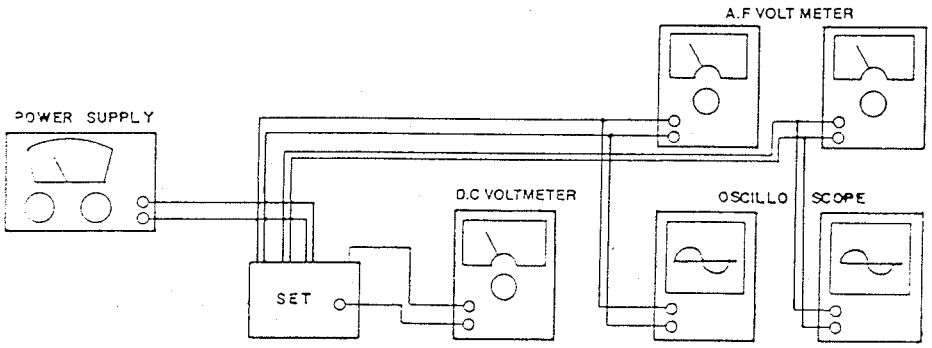
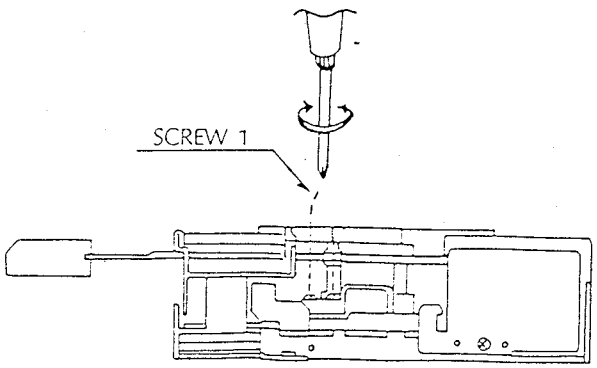
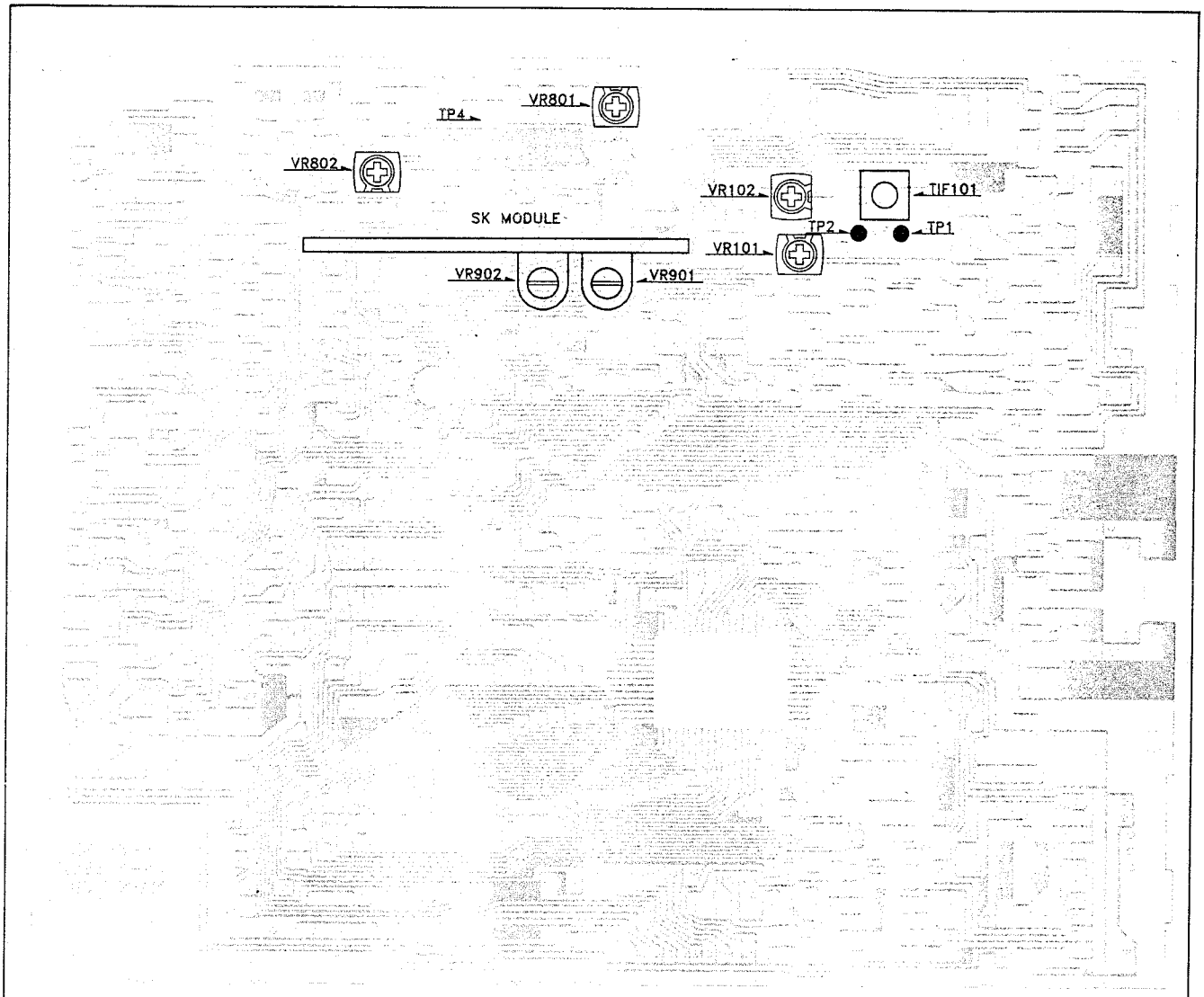


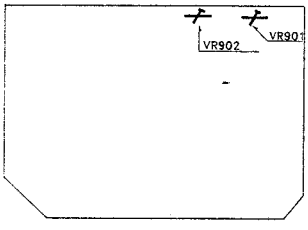
Fig 4



ADJUST POSITION(GXR-818DT)

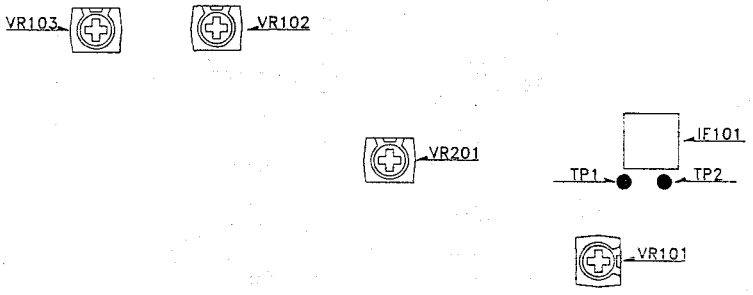


(MAIN PCB TOP SIDE)



(SK PCB TOP SIDE)

ADJUST POSITION(GXR-203DT)



VOLTAGE TABLE GXR-818DT

TRANSISTOR PARTS:

TR NO PIN	Q101	Q102	Q103	Q105	Q201	Q202	Q203	Q204	Q205	Q206	Q207	Q208	Q209	Q214	Q215	Q216
EMITOR	2.76	0	0	0	0	0	0	0	9.4	0	0	0	0	1.7	0	0
COLLECTOR	11.8	6.14	0.6	0.6	0	0.1	13.3	10	13.7	0	0	2.13	2.12	5.9	0	0
BASE	2.83	0	0	0	0	0.7	0.11	0.12	9.9	0	0	0	0	2.3	0	0
TR NO PIN	Q301	Q302	Q304	Q304	Q351	Q501	Q502	Q503	Q504	Q505	Q506	Q507	Q508	Q513	Q514	Q601
EMITOR	0.59	0.57	0	0	0.1	0	0.59	0.22	0.6	2.54	0.7	0	0	2.1	1.8	0
COLLECTOR	9.2	9.2	0	0	3	3.9	3.9	2.37	2.37	2.54	2.54	2.5	2.1	2.3	0	0.6
BASE	1.2	1.2	0.58	0.58	0.7	0.6	1.07	0	12	3.1	0	0	0	12.3	3.8	0
TR NO PIN	Q602	Q801	Q802	Q803	Q804											
EMITOR	0	0.6	0	0	0											
COLLECTOR	0	3.2	12	0.4	0.4											
BASE	0.6	0	0	0	0											

IC PARTS:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC-LA1140	2.74	2.74	2.74	0	2.1	0	5	5	4.9	8.8	5	0.15	5	0.15	5	1.7
IC-YY86	4.69	0.18	12	3	4.1	3	3.9	4.9	0	2	3.2					
IC-LA3370	8.83	2.96	3.14	2.88	3.86	3.8	1.59	1.09	5.74	2.58	2.58	1.81	2.57	2.57	2.7	
IC-LA3161	1.31	0.77	2.91	12.2	0	2.81	0.77	1.3								
IC-0001A	0.74	0.68	0.83	0.71	0.67	0.77	0.74	0.84	0.84	0	0.71	2.77	0.27	0.79	9.5	3.05
IC-HA13118	1.15	4.61	0.15	0	1.55	1.12	0	6.95	0	12.7	0	0	13.3	12.7	7.03	
IC-78L05	12.8	0.74	5.73													
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC-A1019	1.1	2	0.8	0.7	0	2	8.9	8.9	0.8	8.9	0.5	0	3.1	8.9	1.3	7.5
	17	18	19	20												
	2.9	5.6	5.6	3												
IC-LA2211	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	0.2	2.6	2.6	2.4	2.6	0	1	0	0	0	3.3	0.4	0	1	7.7	1.6
	17	18	19	20	21											
	2.8	2.8	2.7	2.7	2											
IC-2220	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	12.8	2	2	0.6	1.9	1.6	1.9	0.9	3	0	13	2.8	0.5	3.7		
	17	18	19	20	21	22										
	0.8	3.1	3.1	3.1	3.1	3.4										
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC 1723G-013	0	1.1	2.4	5	0	2.18	4.6	4.91	0	0	4.91	4.88	0	4.9	0	2.19
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	0.3	0	0	0	0	0	0	7.48	2.35	0	0	2.45	2.45	2.45	2.45	2.45
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	0	2.75	1.4	4.68	2.4	0	6.65

VOLTAGE TABLE GXR-200, 203DT

TRANSISTOR PARTS:

TR NO PIN	Q101	Q102	Q103	Q104	Q201	Q202	Q203	Q204	Q205	Q206	Q207	Q208	Q209	Q210	Q211	Q214
EMITOR	1.48	0	0	0	0	0	0	0	9.32	0	0	0	0	8.37	0	1.72
COLLECTOR	8.85	6.3	0.83	2.38	0	0.12	13.4	10	13.8	0	0	2.12	2.18	14.1	2.7	5.92
BASE	9.16	0	0	0	0	0.73	0.12	9.97	0	0	0	0	0	9	0	2.38
TR NO PIN	Q215	Q216	Q301	Q302	Q303	Q304	Q305	Q306	Q501	Q502	Q503	Q504	Q505	Q506	Q507	Q508
EMITOR	0	0	1.23	1.25	0	0	0	0	0	0.62	0	0	2.56	0	0	0
COLLECTOR	2.38	2.45	10.1	10.2	0	0	0	0	3.66	3.66	0	2.4	2.56	2.56	2.56	2.12
BASE	0	0	0.58	0.6	0.6	6.44	6.53	6.53	0.62	1.1	6.53	0	3.18	0.3	0	0.6
TR NO PIN	Q601	Q602	Q801	Q802												
EMITOR	0	0	0.32	0.34												
COLLECTOR	0.67	0	3.36	3.1												
BASE	0	0.67	0.75	0.97												

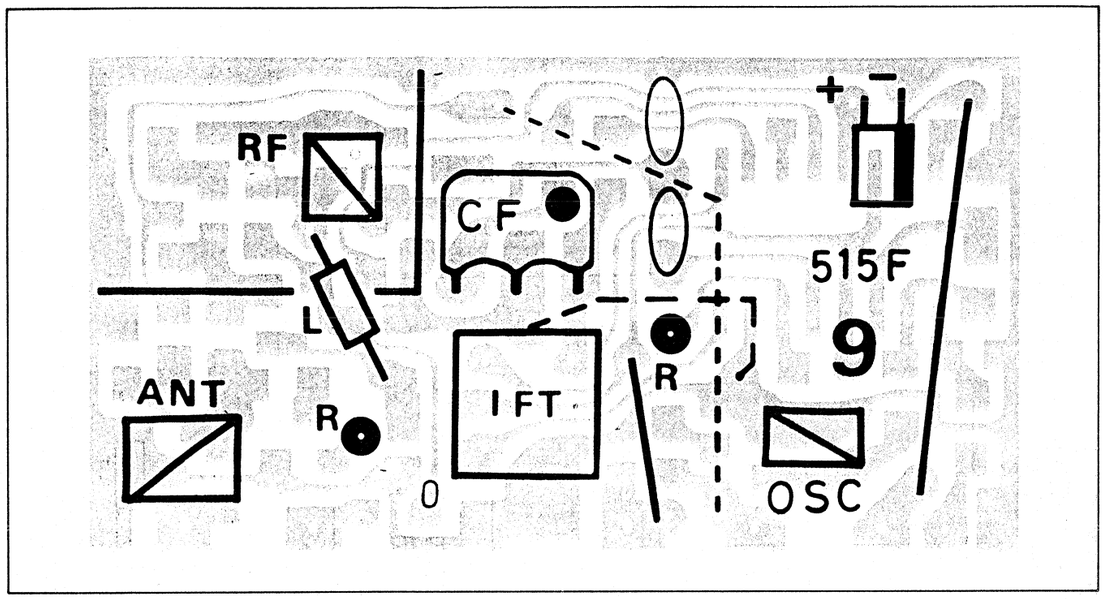
IC PARTS:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC-LA1140	2.74	2.74	2.74	0	2.2	0.1	5	5	4.9	8.8	5	0.15	5	0.15	5	1.7
IC-YY86	4.69	0.18	9	3.58	4.85	4.38	4.41	4.95	0	1.85	3.27					
IC-LA3370	8.83	2.96	3.14	2.88	3.86	3.8	1.59	1.09	5.74	2.58	2.58	1.81	2.57	2.57	2.7	
IC-LA3161	1.31	0.77	2.91	12.2	0	2.81	0.77	1.3								
IC-0001A	0.74	0.68	0.83	0.71	0.67	0.77	0.74	0.84	0.84	0	0.71	2.77	0.27	0.79	9.5	3.05
IC-HA13118	1.15	4.61	0.15	0	1.55	1.12	0	6.95	0	12.7	0	0	13.3	12.7	7.03	
IC-78L05	12.8	0.74	5.73													

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC-A1019	1.1	2	0.8	0.7	0	2	8.9	8.9	0.8	8.9	0.5	0	3.1	8.9	1.3	7.5
	17	18	19	20												
	2.9	5.6	5.6	3												

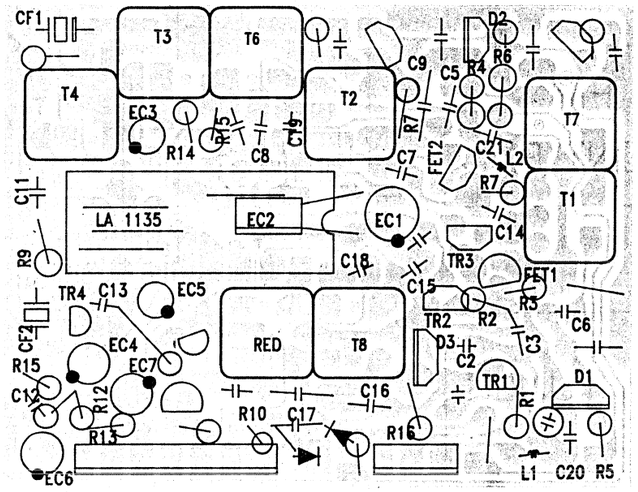
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IC 1723G-013	0	1.1	2.4	5	0	2.18	4.6	4.91	0	0	4.91	4.88	0	4.9	0	2.19
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	0.3	0	0	0	0	0	0	7.48	2.35	0	0	2.45	2.45	2.45	2.45	2.45
	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	0	2.75	1.4	4.68	2.4	0	6.65

FM TUNER(GXR-200, 203, 818DT)

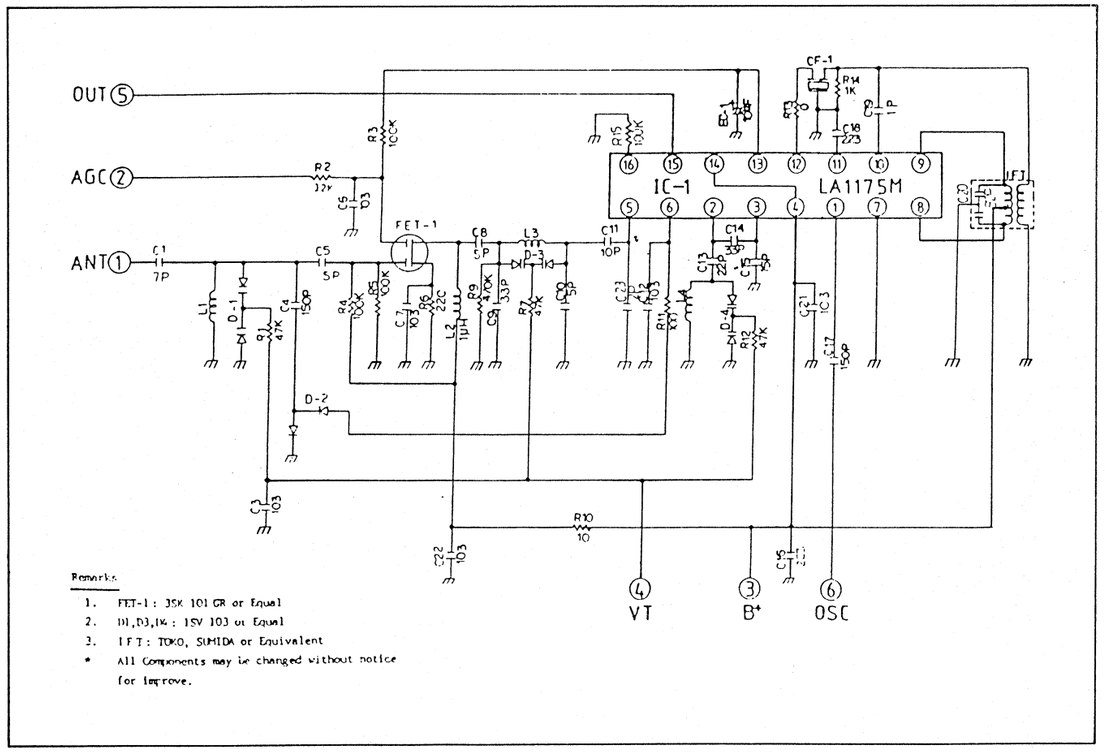


FM TUNER P.C.B TOP VIEW

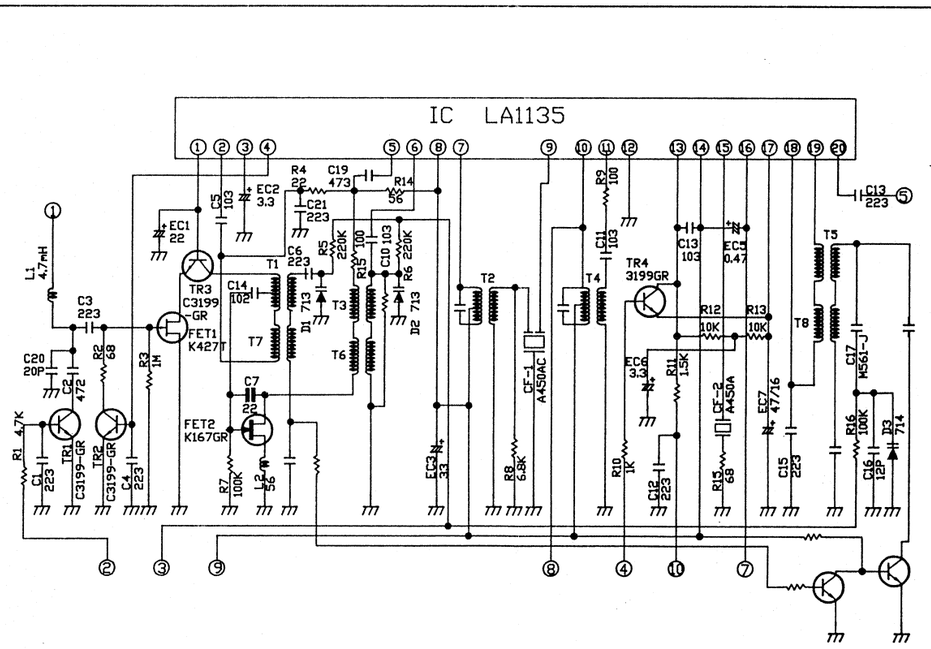
AM TUNER(GXR-200, 203DT)



AM TUNER P.C.B TOP VIEW

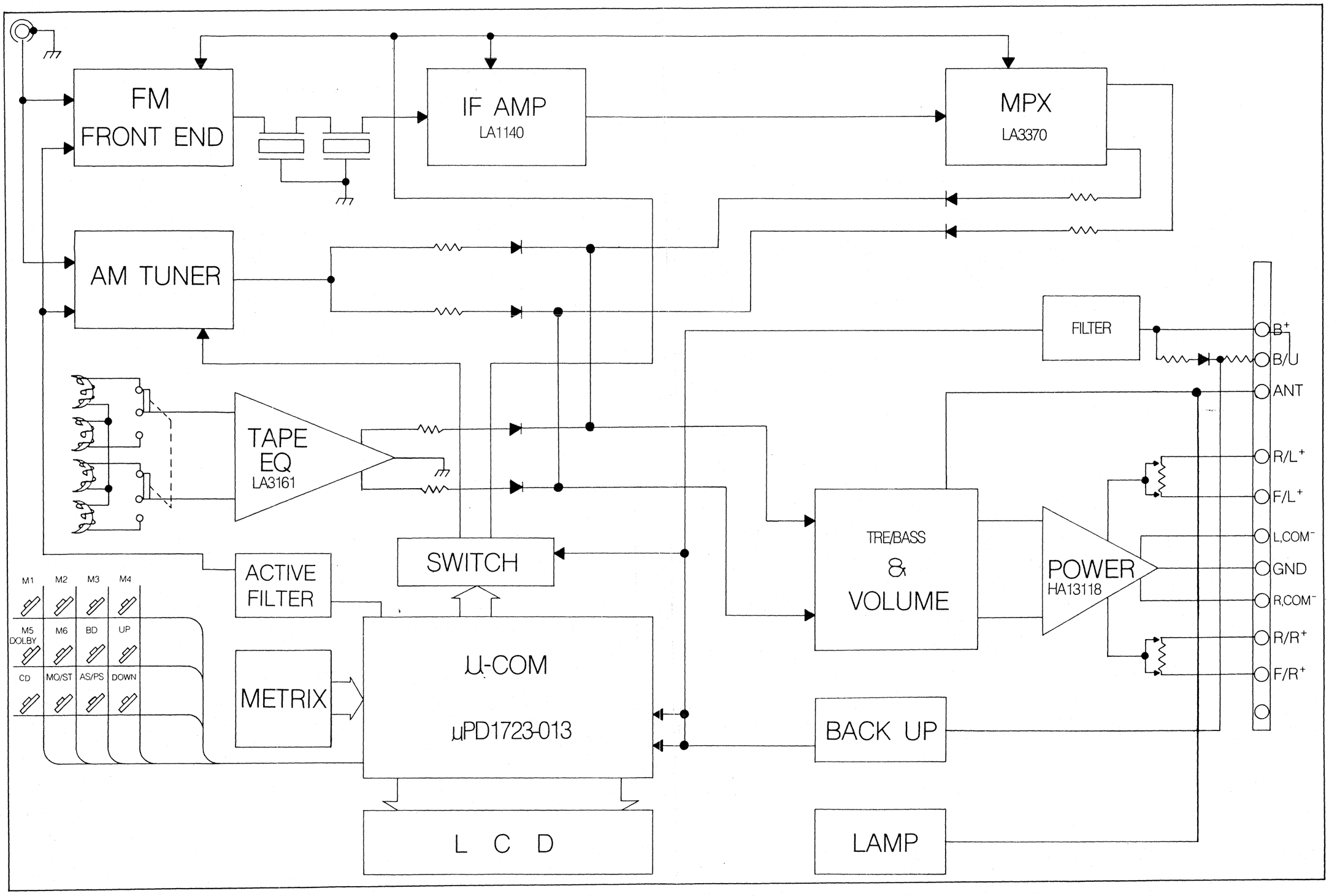


CIRCUIT DIAGRAM FM TUNER

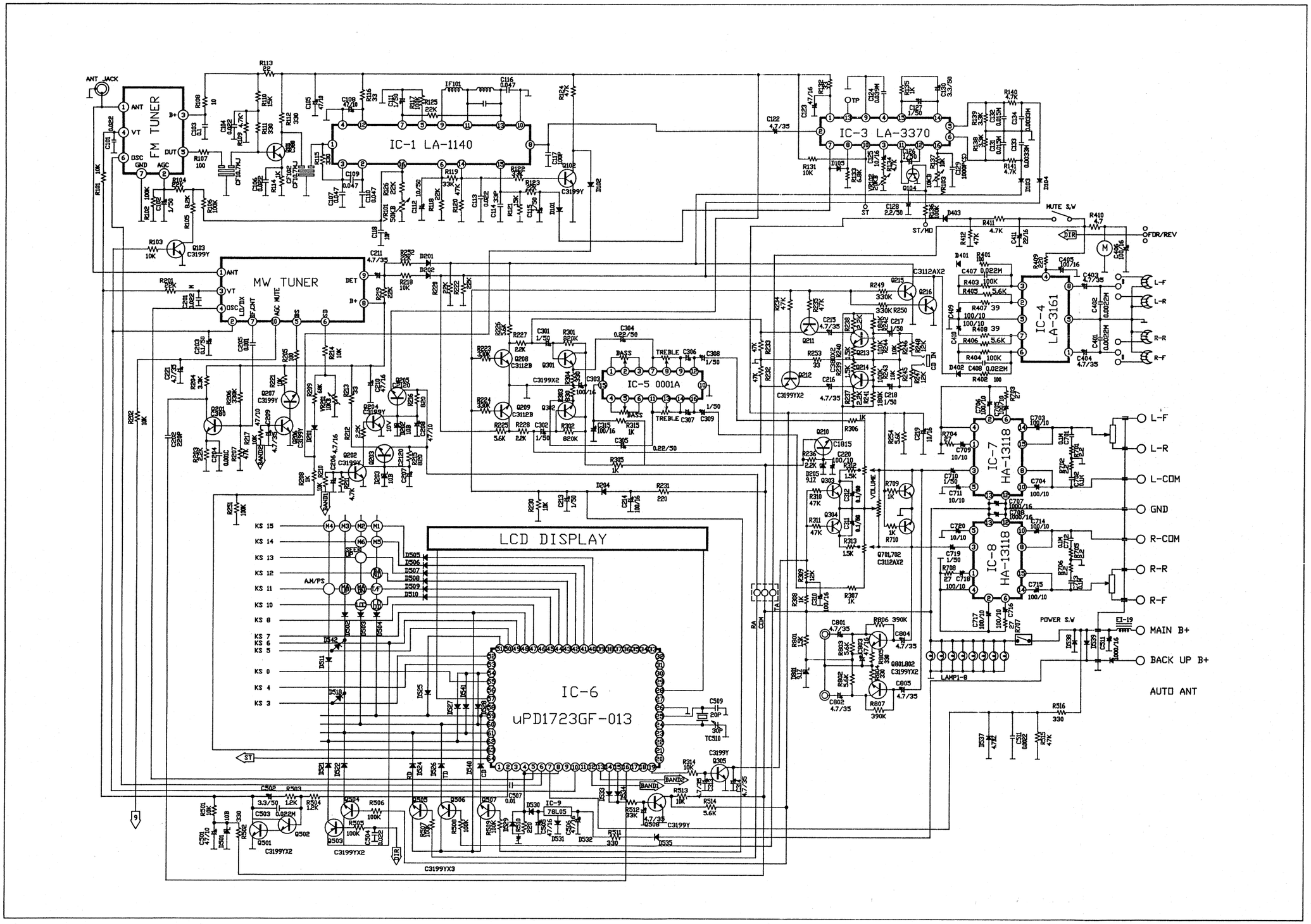


CIRCUIT DIAGRAM AM TUNER

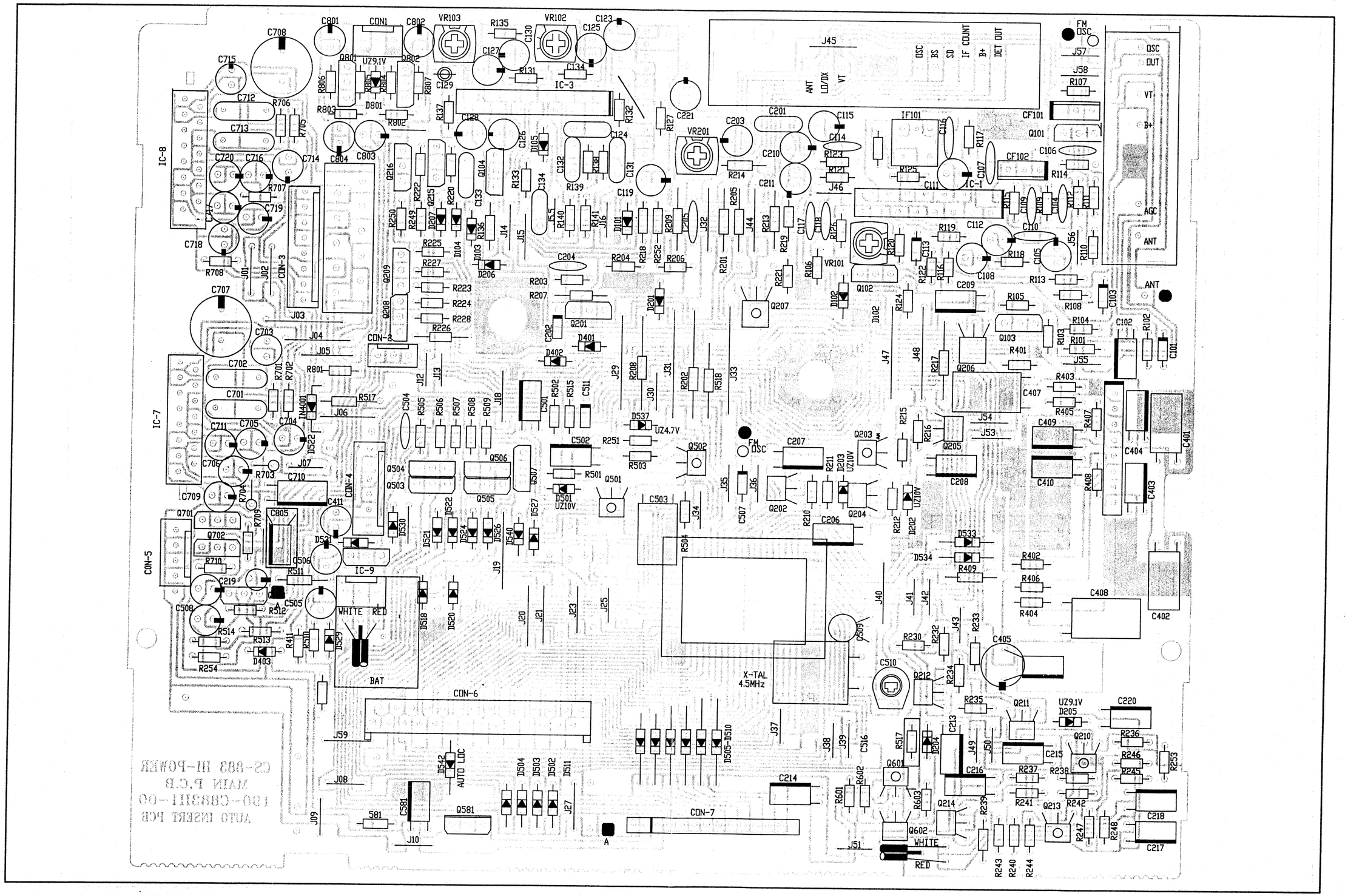
BLOCK DIAGRAM(GXR-203DT)



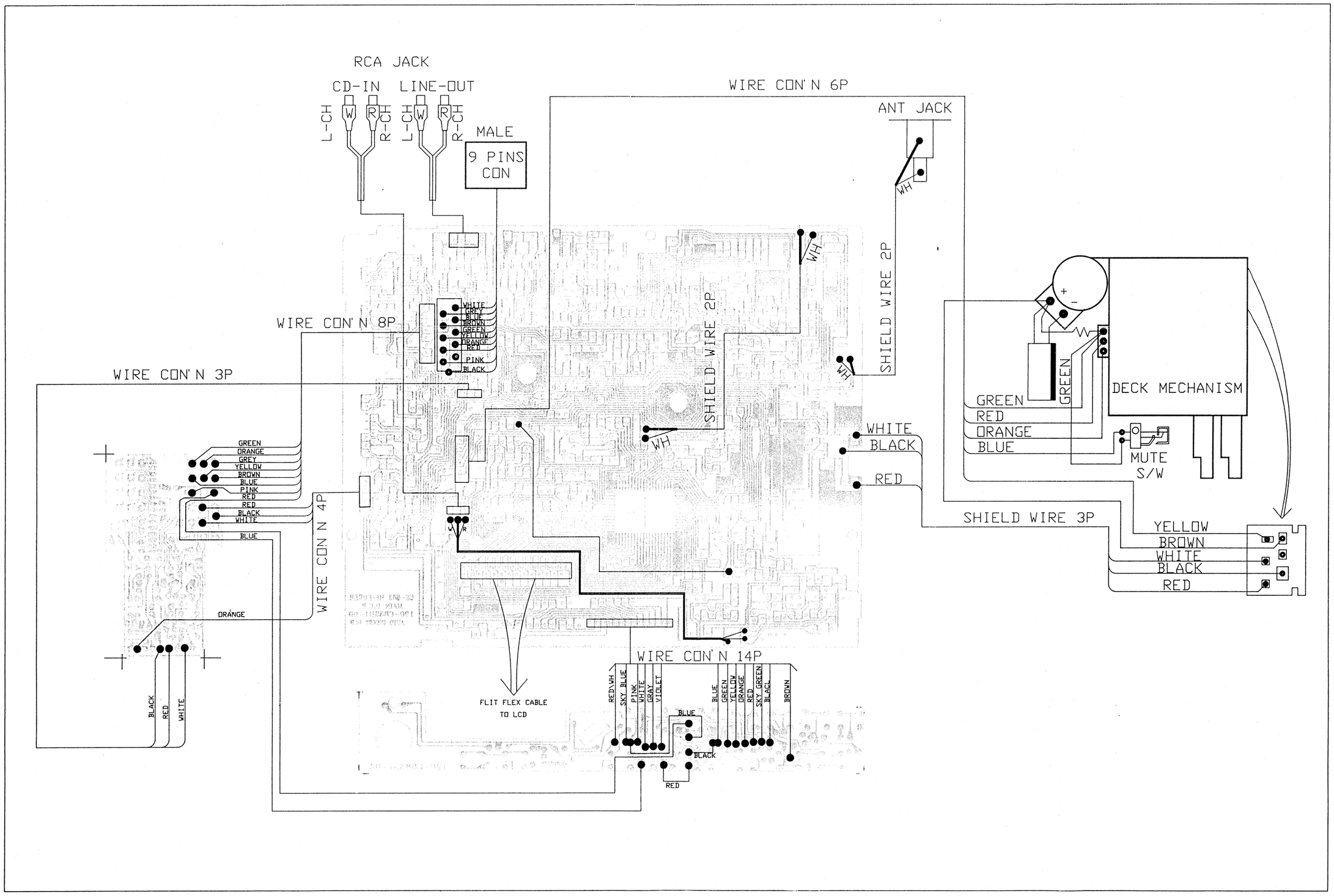
SCHEMATIC DIAGRAM(GXR-203DT)



MAIN P.C. BOARD(GXR-203DT)



WIRING CONNECTIONS(GXR-203DT)



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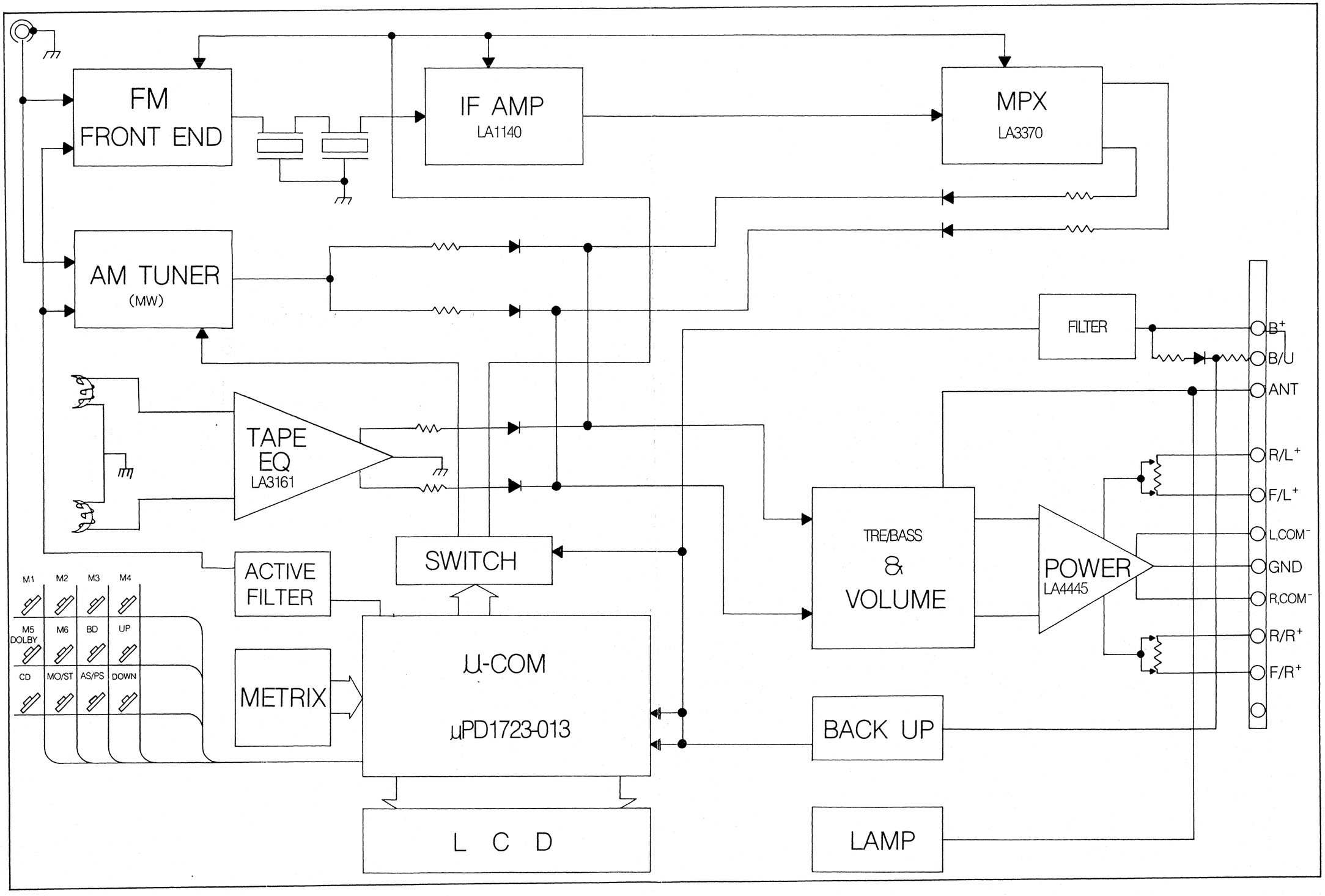
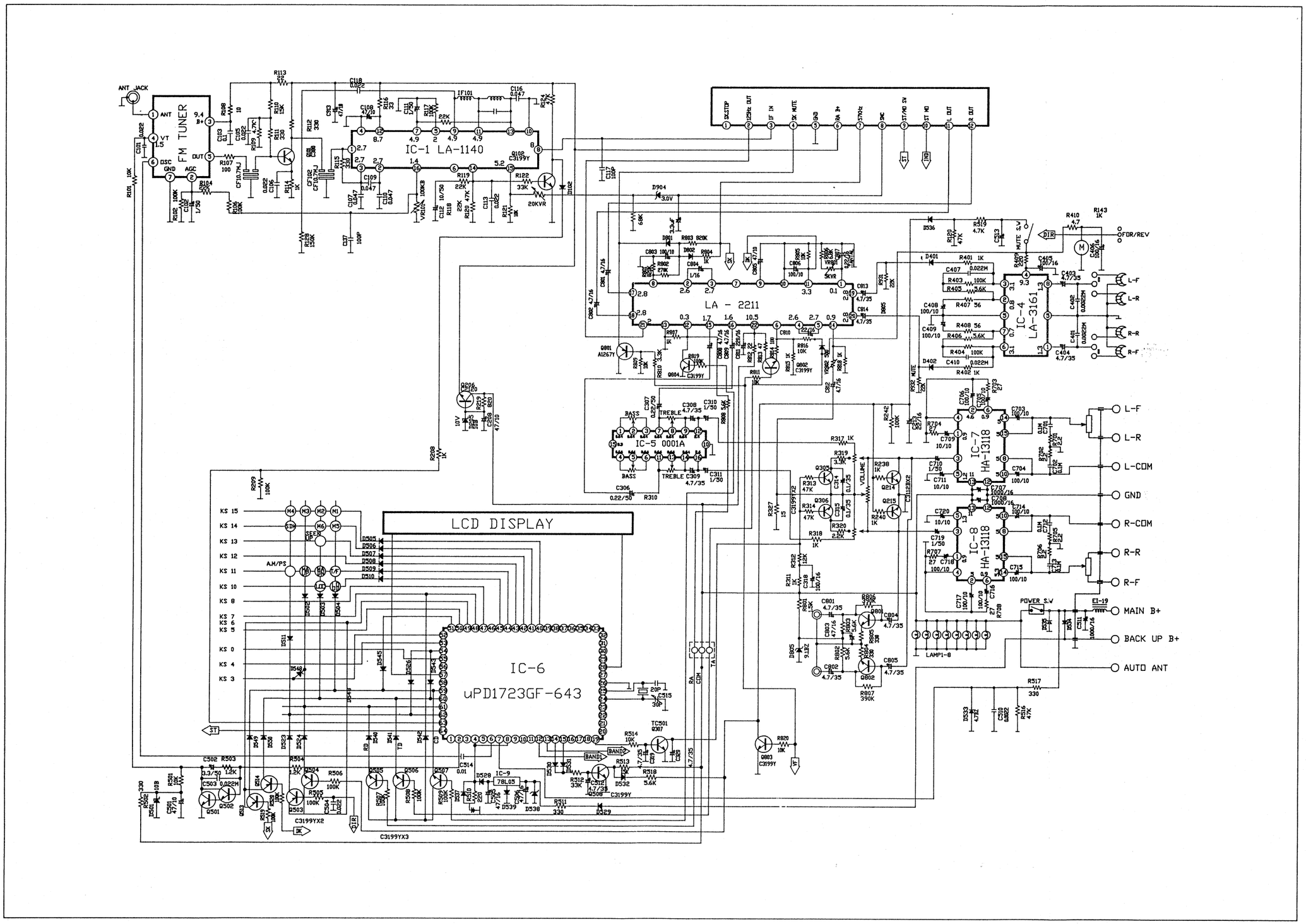
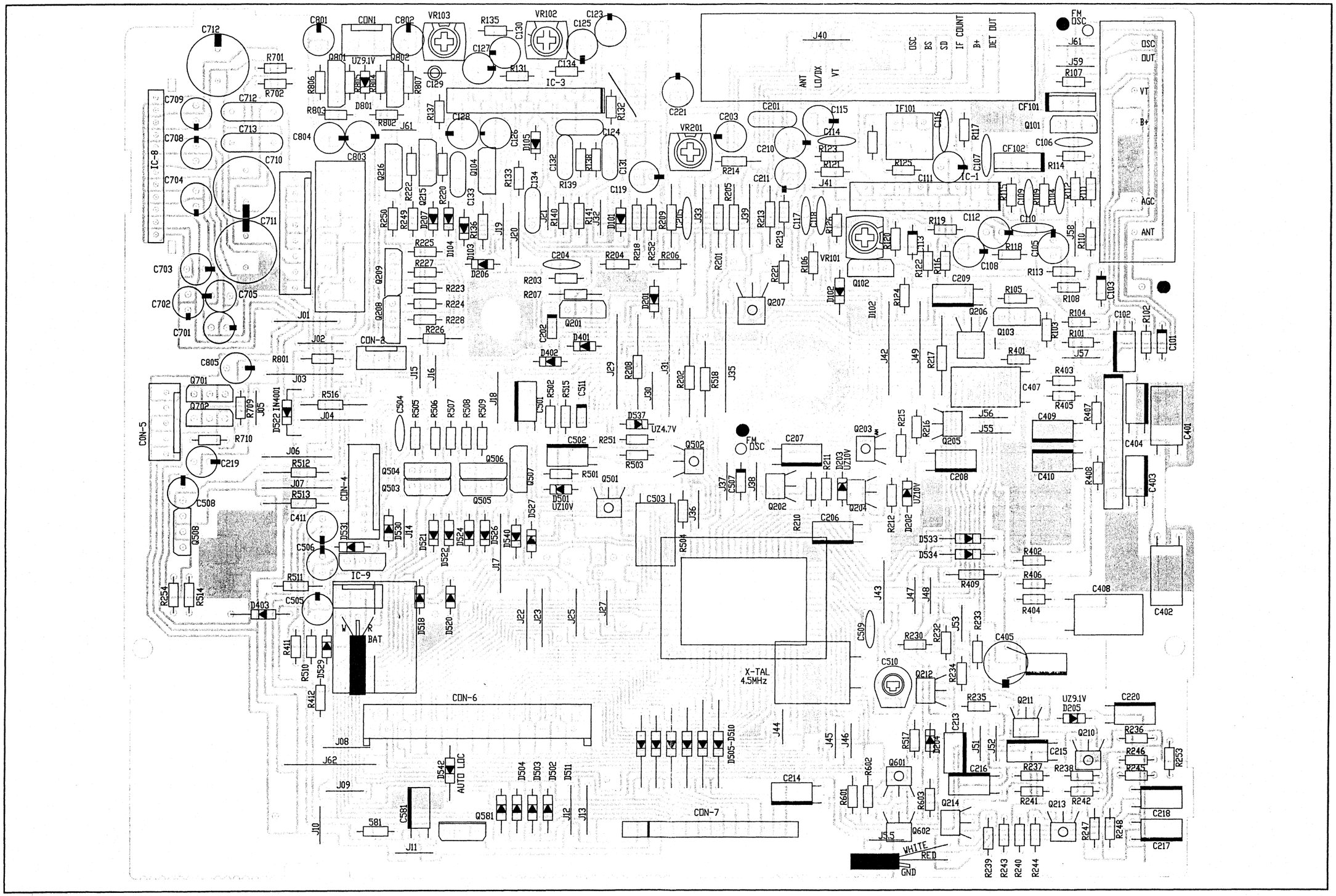


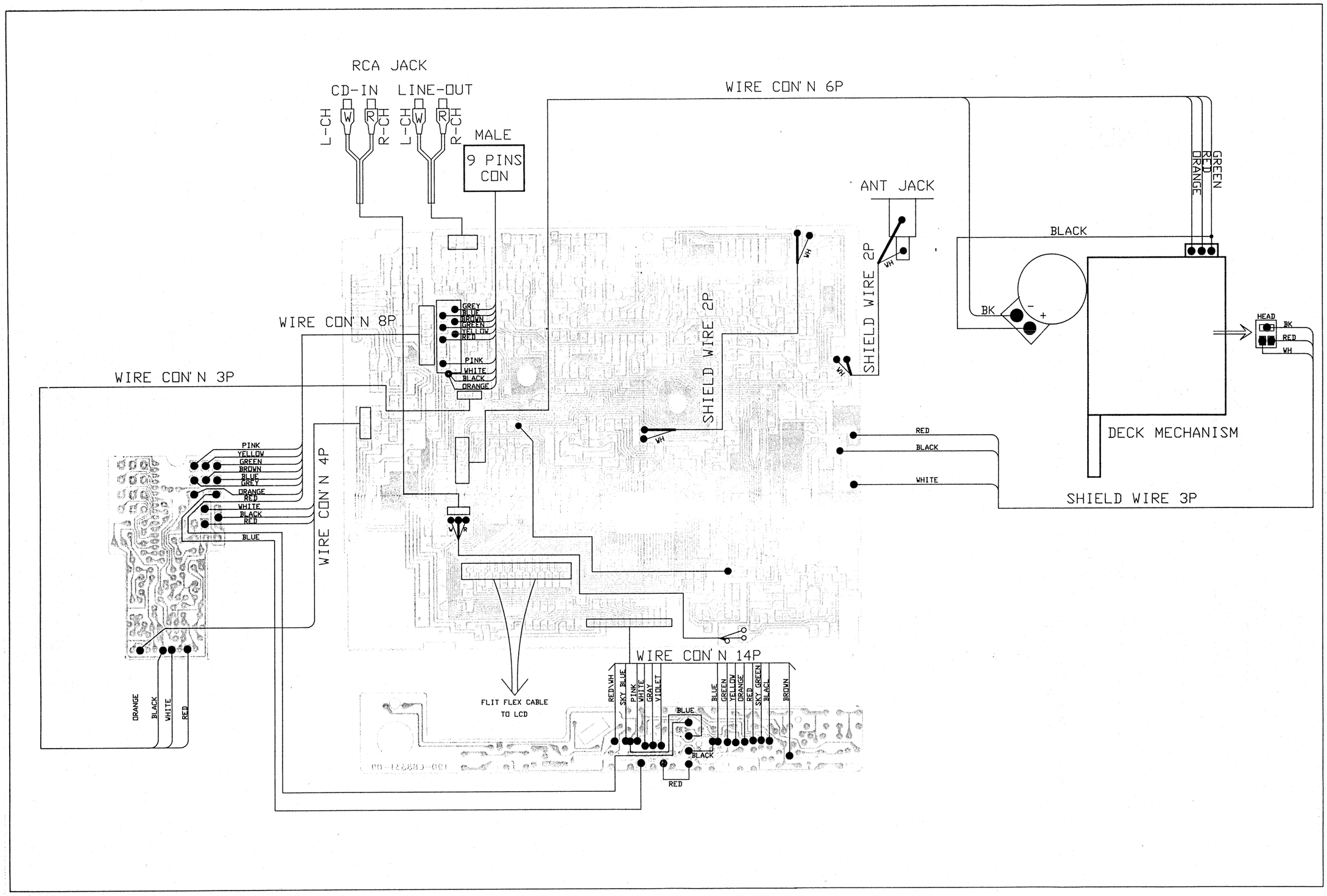
SCHEMATIC DIAGRAM(GXR-200DT)



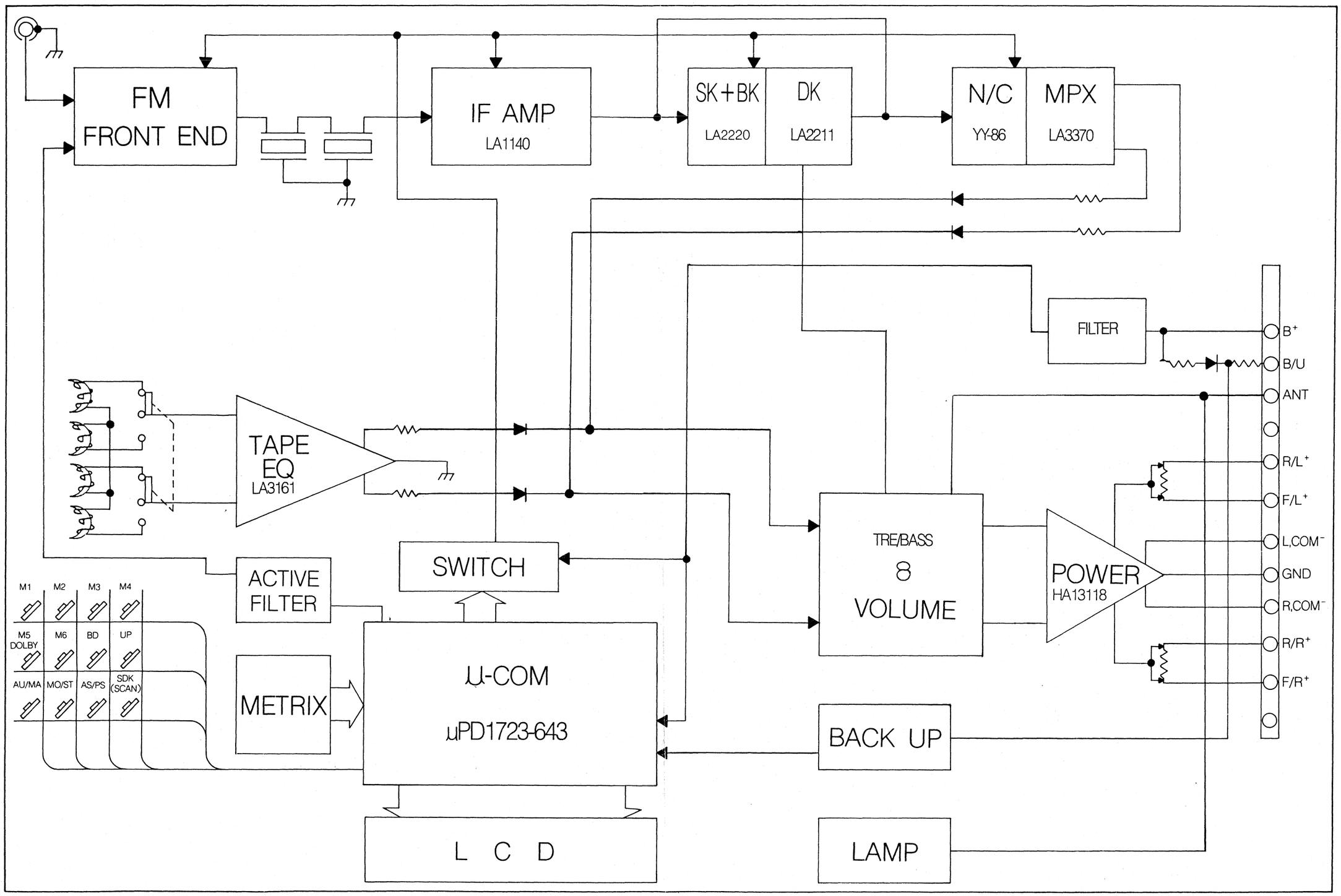
MAIN P.C.B. BOARD(GXR-200DT)



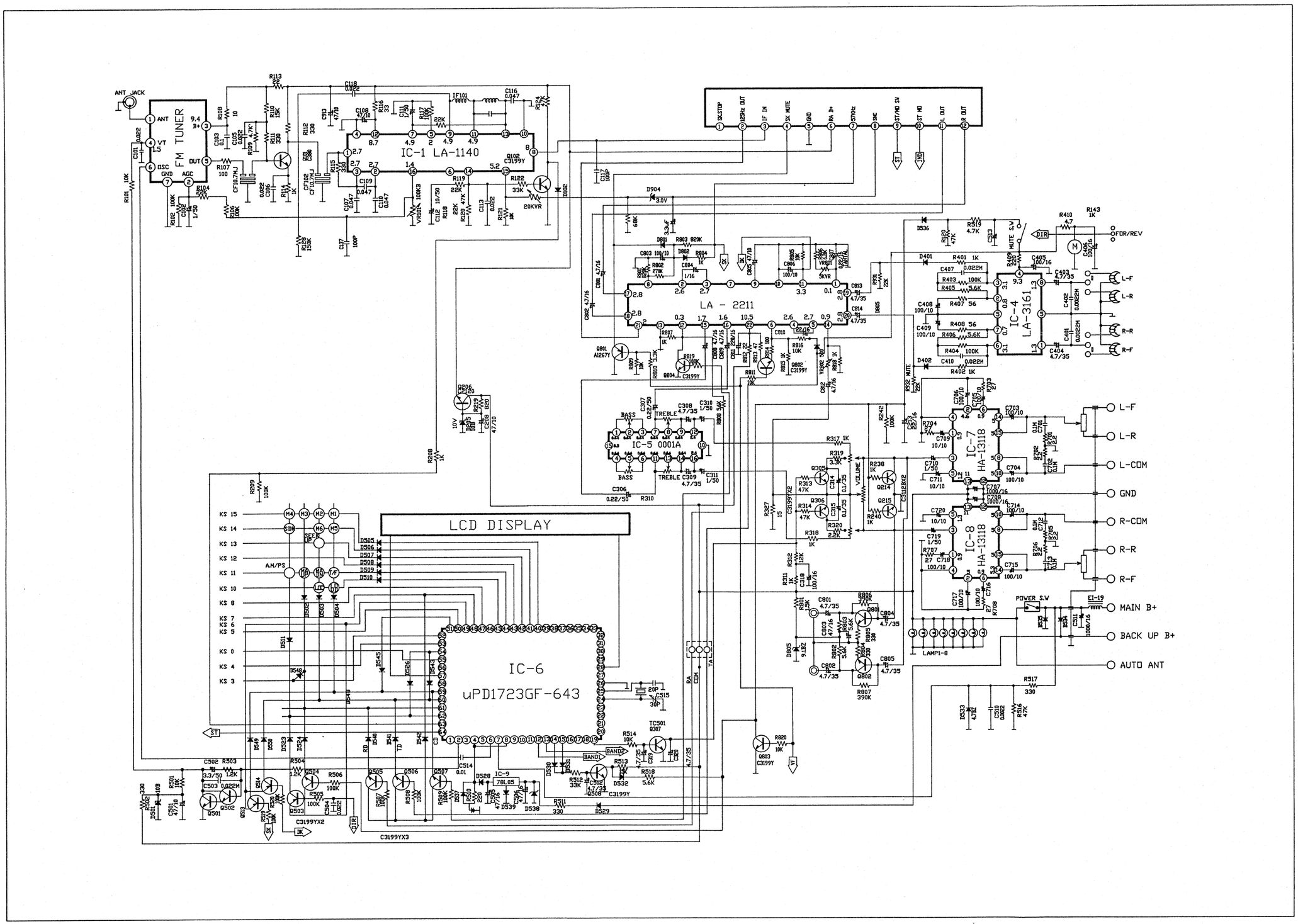
WIRING CONNECTIONS(GXR-200DT)



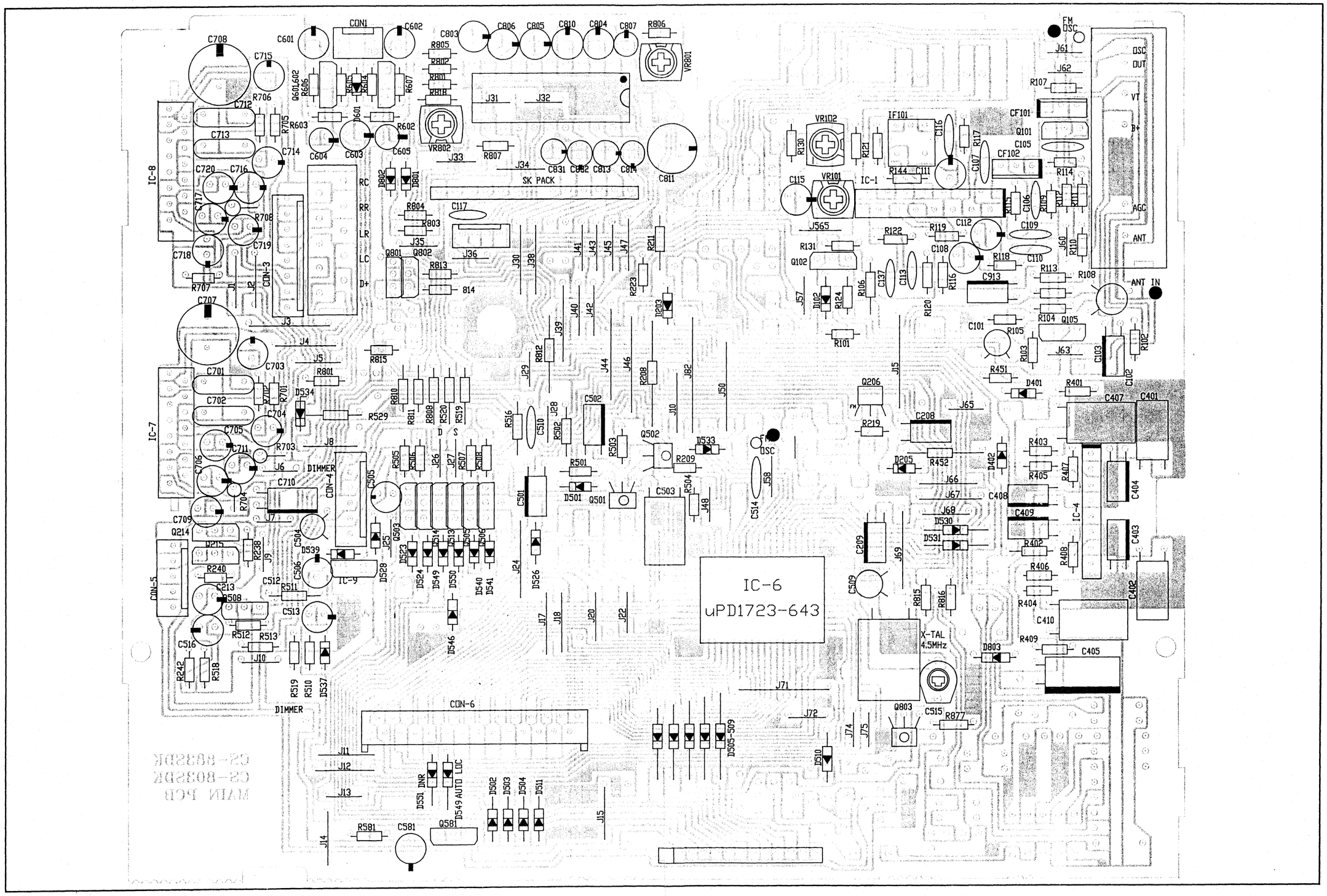
BLOCK DIAGRAM (GXR-818DT)



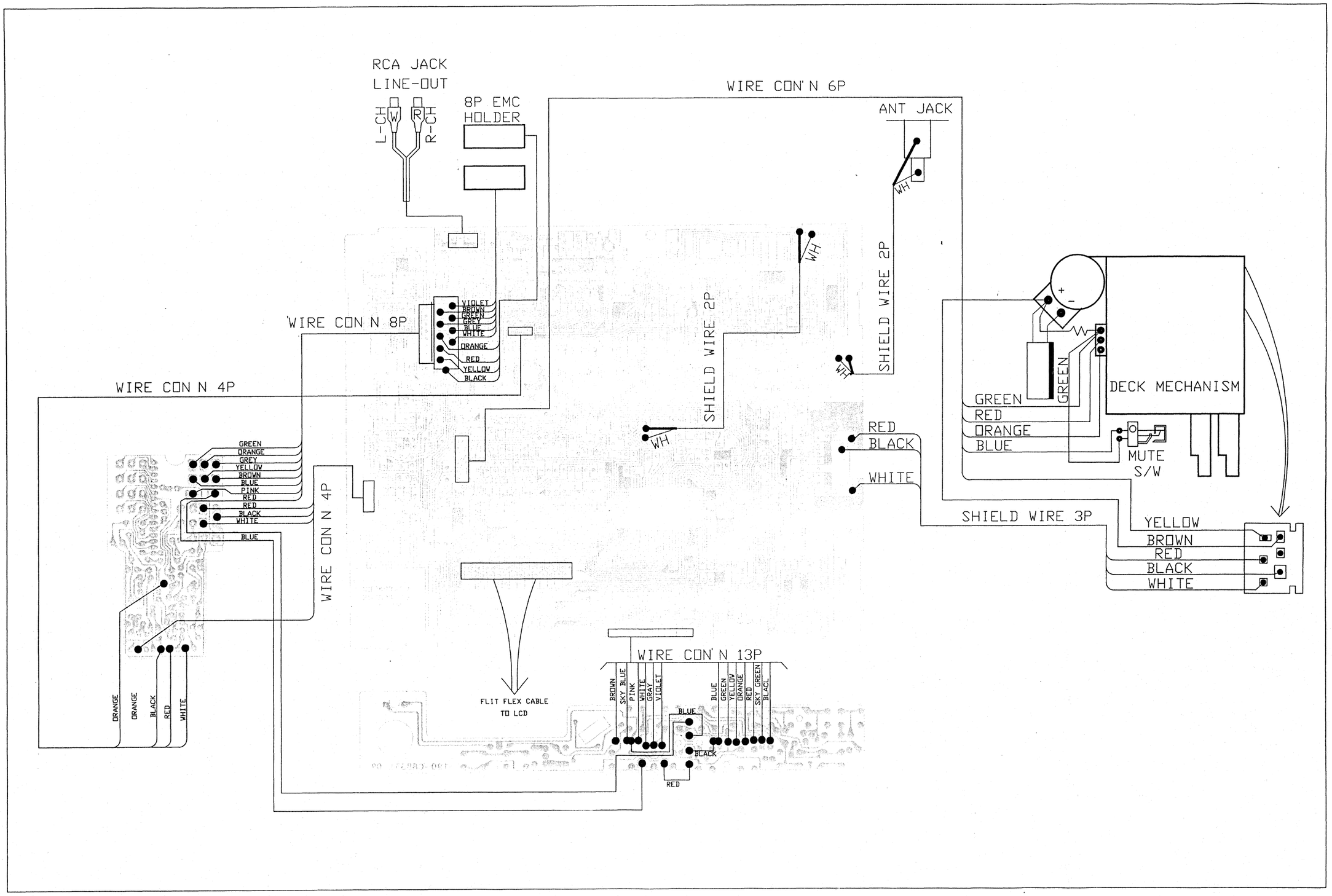
SCHEMATIC DIAGRAM(GXR-818DT)



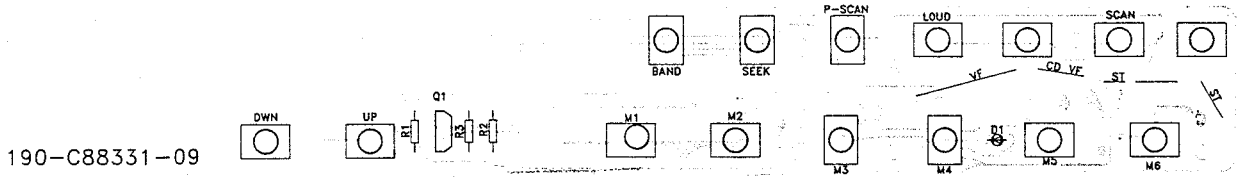
MAIN P.C.B. BOARD(GXR-818DT)



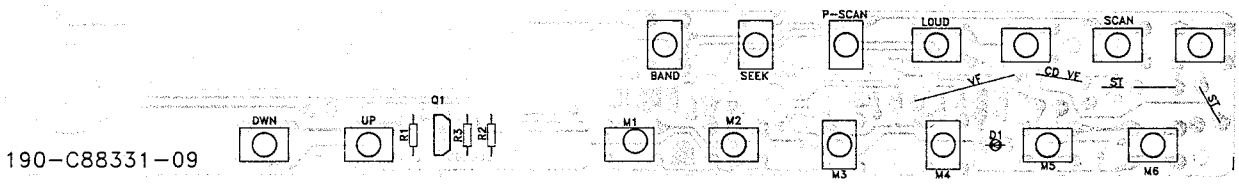
WIRING CONNECTIONS(GXR-818DT)



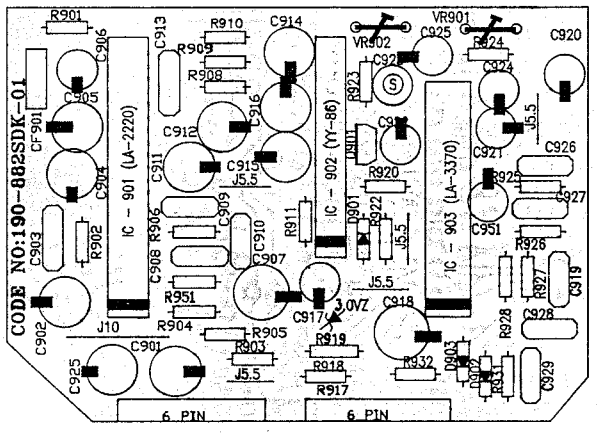
PCB'S(GXR-818DT)



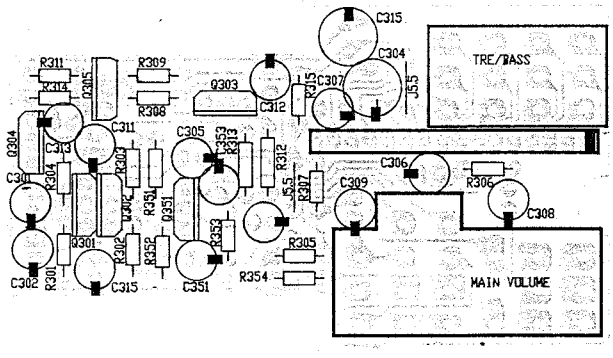
FRONT P.C.B(TOP SIDE)



FRONT P.C.B(BOTTOM SIDE)

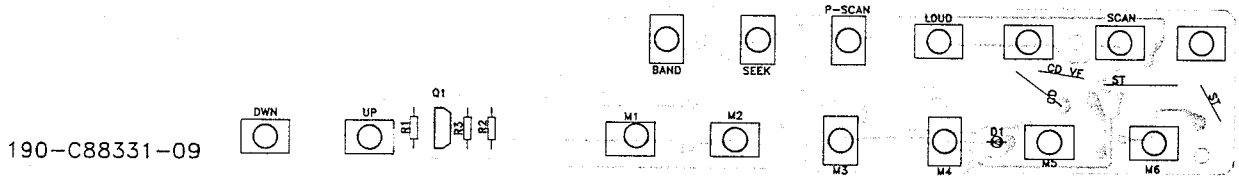


(SK PCB TOP SIDE)

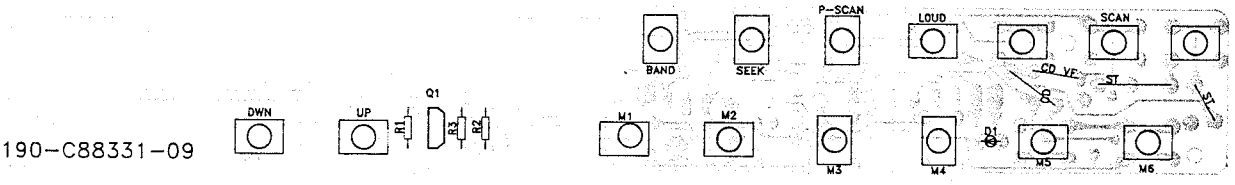


VOLUME P.C.B

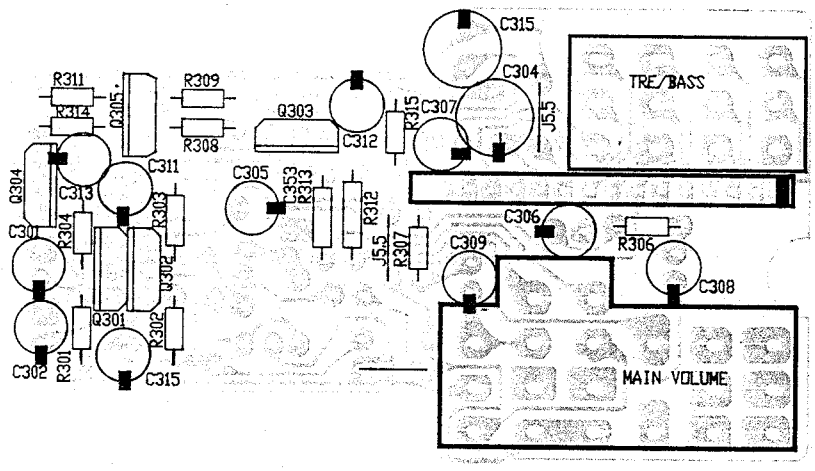
PCB'S(GXR-200,203DT)



FRONT P.C.B(TOP SIDE)



FRONT P.C.B(BOTTOM SIDE)



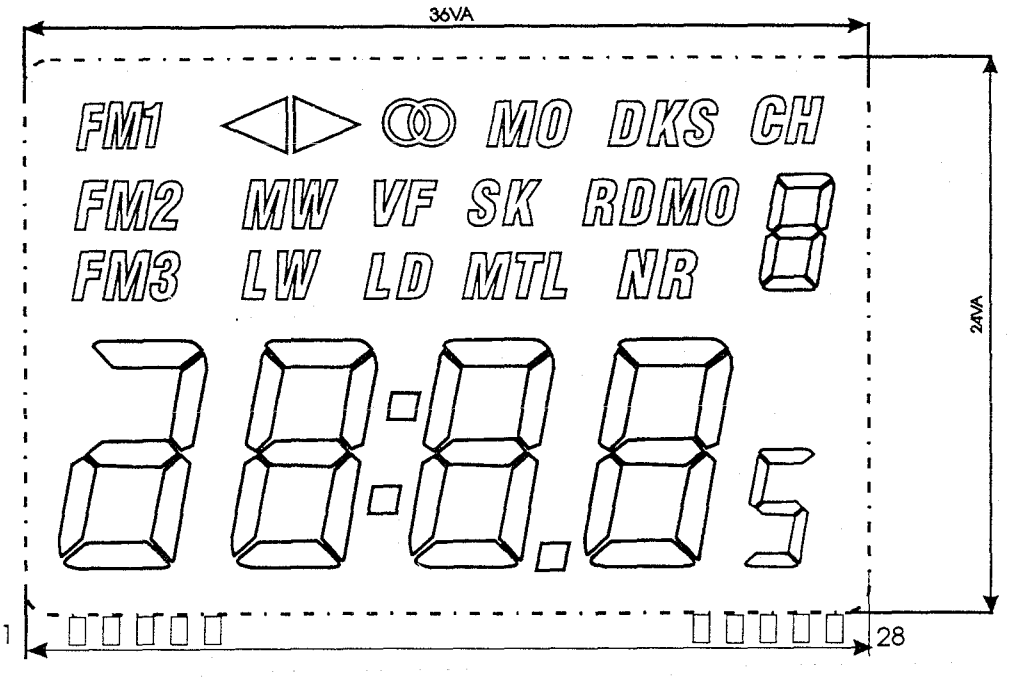
VOLUME P.C.B(TOP SIDE)

PARTS LIST ELECTRICAL

MAIN PCB ASS'Y

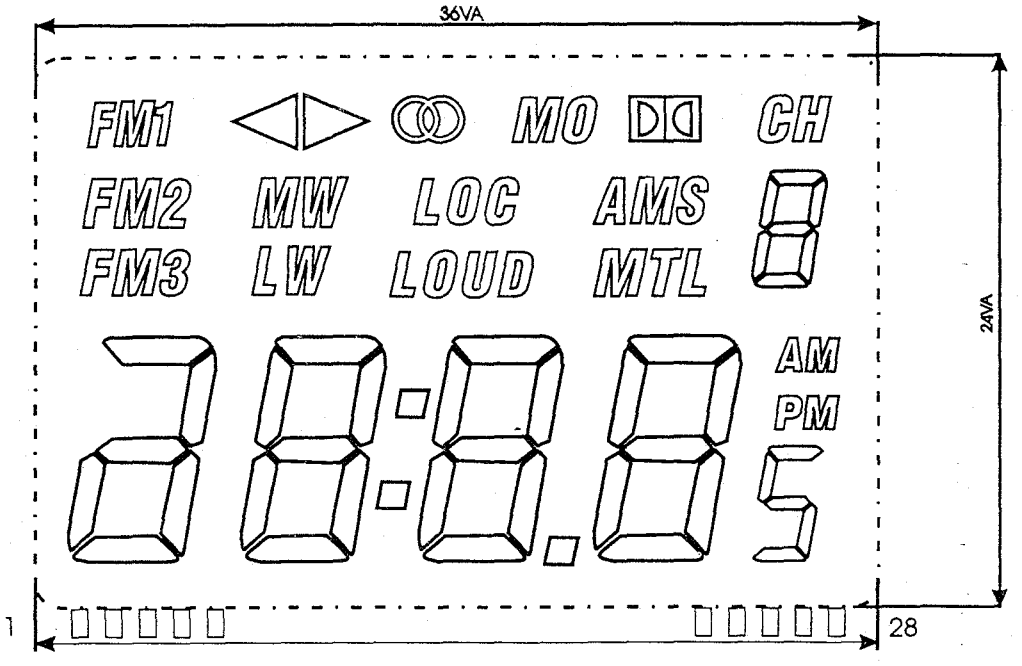
LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
	003-141602-08	FM TUNER CET-502CNF		1	1
	003-181604-08	AM TUNER CET-730ALC		1	1
VR103	012-103360-06	R-SEMI FIXED 10KB		1	1
VR102,103	003-181604-06	R-SEMI FIXED 20KB		2	2
VR101	012-103360-06	R-SEMI FIXED 50KB		1	1
IF101	102-270881-15	FM IFT COIL		1	1
CF101,102	107-107MS2-26	FM CERAMIC FILTER 10.7MS2		2	2
R108,213	113-100805-17	RESISTOR 10 OHM 1/8W		2	2
R107,205,401,402	113-101805-17	RESISTOR 100 OHM 1/8W		3	3
R205	113-101805-17	RESISTOR 100 OHM 1/8W		1	1
R114,135,208,709	113-102805-17	RESISTOR 1K OHM 1/8 W		4	4
R710	113-102805-17	RESISTOR 1K OHM 1/8W		1	1
R101,103,131,137	113-103805-17	RESISTOR 10K OHM 1/8W		4	4
R202,210,230,245	113-103805-17	RESISTOR 10K OHM 1/8W		4	4
R246,501,513,517	113-103805-17	RESISTOR 10K OHM 1/8W		4	4
R518,211,217	113-103805-17	RESISTOR 10K OHM 1/8W		3	3
R508,509,601,602	113-104805-17	RESISTOR 100K OHM 1/8W		4	4
R102,106,117,136	113-104805-17	RESISTOR 100K OHM 1/8W		4	4
R243,244,251,403	113-104805-17	RESISTOR 100K OHM 1/8W		4	4
R404,507(505,506)	113-104805-17	RESISTOR 100K OHM 1/8W		4	2
R407,408	113-121805-17	RESISTOR 120 OHM 1/8W		2	2
R503,504	113-122805-17	RESISTOR 1.2K OHM 1/8W		2	2
R247,248	113-123805-17	RESISTOR 12K OHM 1/8W		2	2
R239,240(801)	113-152805-17	RESISTOR 1.5K OHM 1/8W		3	2
R121,110,150	113-153805-17	RESISTOR 15K OHM 1/8W		3	3
R804,805	113-181805-17	RESISTOR 180 OHM 1/8W		2	2
R241,242	113-184805-17	RESISTOR 180K OHM 1/8W		2	2
R113	113-220805-17	RESISTOR 22 OHM 1/8W		1	1
R206,223,224,249	113-270805-17	RESISTOR 27 OHM 1/8W		4	4
R250	113-270805-17	RESISTOR 27 OHM 1/8W		1	1
R409	113-221805-17	RESISTOR 220 OHM 1/8W		1	1
R203,212,227,228	113-222805-17	RESISTOR 2.2K OHM 1/8W		4	4
R236,237,238	113-222805-17	RESISTOR 2.2K OHM 1/8W		3	3
R104,118,123,126	113-223805-17	RESISTOR 22 K OHM 1/8W		4	4
R201,218,219,220	113-223805-17	RESISTOR 22K OHM 1/8W		4	4
R222,252,125	113-223805-17	RESISTOR 22K OHM 1/8W		3	3
R701,702	113-229805-17	RESISTOR 2.2 OHM 1/8W		2	2
R116,132,253	113-330805-17	RESISTOR 33 OHM 1/8W		3	3
R111,112,115,502	113-331805-17	RESISTOR 330 OHM 1/8W		4	4
R511	113-331805-17	RESISTOR 330 OHM 1/8W		1	1
R138,139,204,516	113-332805-17	RESISTOR 3.3K OHM 1/8W		4	4
R119,122,512	113-333805-17	RESISTOR 33K OHM 1/8W		3	3
R206,223,224,249	113-334805-17	RESISTOR 330K OHM 1/8W		4	4
R250	113-334805-17	RESISTOR 330K OHM 1/8W		1	1

(GXR-818DT)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	COM1	SK			LW	FM2	adeg	1c	2b	2g	2c	COL	3b	3g	3c	P	4b	4g	4c	LD	5	DKS	CH	5b	5g	5c	NR
COM2		VF	MO		MW	FM1	FM3	1b	2f	2e	2d	2a	3f	3e	3d	3a	4f	4e	4d	4a	MTL	ROMA		5f	5e	5d	5a

(GXR-200, 203DT)



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	COM1				LW	FM2	adeg	1c	2b	2g	2c	COL	3b	3g	3c	P	4b	4g	4c	LOUD	5	CH	PM	5b	5g	5c	DK
COM2		LOC	MO		MW	FM1	FM3	1b	2f	2e	2d	2a	3f	3e	3d	3a	4f	4e	4d	4a	MTL	AMS	AM	5f	5e	5d	5a

MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
C119,206,211,221	127-475068-31	ELECT CAP. 4.7uF 35		4	4
C403,404,508,801	127-475068-31	ELECT CAP. 4.7uF 35		4	4
C802,804,805	127-475068-31	ELECT CAP. 4.7uF 35		3	3
C207,208,501	127-476038-31	ELECT CAP. 47uF 10V		3	3
C105,108,210,505	127-476048-01	ELECT CAP. 47uF 16V		4	4
C506,803,123,213	130-134148-01	ELECT CAP. 47uF 16V		4	4
D101,102,103,104	130-134148-01	SILICON DIODE IN4148		4	4
D105,201,204,206	130-134148-01	SILICON DIODE IN4148		4	4
D207,502,503,504	130-134148-01	SILICON DIODE IN4148		4	4
D505,506,507,508	130-134148-01	SILICON DIODE IN4148		4	4
D509,510,511,518	130-134148-01	SILICON DIODE IN4148		4	4
D402,521,522,514	130-134148-01	SILICON DIODE IN4148		4	4
D524,526,527,530	130-134148-01	SILICON DIODE IN4148		4	4
D531,533,534,540	130-134148-01	SILICON DIODE IN4148		4	4
D541(401)	130-134148-01	SILICON DIODE IN4148		2	1
D522	130-314001-00	RECTIFIER DIODE IN4001 1A		1	1
D537	130-410047-00	ZENER DIODE 4.7V 1/2W		1	1
D205,801	130-410091-00	ZENER DIODE 9.1V 1/2W		2	2
D202,203,501	130-410100-00	ZENER DIODE 10V 1/2W		3	3
Q210	131-231815-18	TRANSISTOR 2SC1815		1	1
Q203,205	131-232120-25	TRANSISTOR C2120		2	2
Q102,103,104,202	131-473199-55	TRANSISTOR KTC-3199Y		4	4
Q204,211,212,501	131-473199-55	TRANSISTOR KTC-3199Y		4	4
Q502,505,506,507	131-473199-55	TRANSISTOR KTC-3199Y		4	4
Q508,801,802,601	131-473199-55	TRANSISTOR KTC-3199Y		4	4
Q602,206,207	131-473199-55	TRANSISTOR KTC-3199Y		3	3
Q503,504	131-473199-55	TRANSISTOR KTC-3199Y		-	2
Q208,209,215,216	131-603112-01	TRANSISTOR KSC-3112A		4	4
Q701,702	131-603112-01	TRANSISTOR KSC-3112A		2	2
Q101,201,213,214	131-47380T-45	TRANSISTOR KTC-380TMO		4	4
Q581	131-233205-25	TRANSISTOR C3205Y		1	1
IC1	133-101140-16	I.C LA1140(SANYO)		1	1
IC4	133-103161-16	I.C LA3161(SANYO)		1	1
IC3	133-103370-16	I.C LA3370(SANYO)		1	1
IC7(200)	133-204445-16	I.C LA4445(SANYO)		1	1
IC6	133-301723-13	I.C uPD1723GF-013		1	1
IC9	133-578005-64	I.C 78L005AP(K.E.C)		1	1
IC6,IC7(203)	133-113118-15	I.C HA13118(HITACHI)		2	2
CON1,CON2,CD-IN	160-403255-21	CONNECTOR 3PINS 2.5MM		3	3
CON5	160-404225-21	CONNECTOR 4PINS 2.5MM		1	1
CON4	160-406225-21	CONNECTOR 6PINS 2.5MM		1	1
CON3	160-408225-21	CONNECTOR 8PINS 2.5MM		1	1
CON7	160-414204-21	CONNECTOR 14PINS 2.0MM		1	1
	137-045000-XX	CRYSTAL 4.5MHz		1	1

MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
R806,807	113-394805-17	RESISTOR 390K OHM 1/8W		2	2
R109,134,140,141	113-472805-17	RESISTOR 4.7K OHM 1/8W		4	4
R211(411,412)	113-472805-17	RESISTOR 4.7K OHM 1/8W		3	1
R120,124,207,232	113-472805-17	RESISTOR 47K OHM 1/8W		4	4
R233,234,235,515	113-473805-17	RESISTOR 47K OHM 1/8W		4	4
R509(412)	113-473805-17	RESISTOR 47K OHM 1/8W		2	2
R214,225,226,254	113-562805-17	RESISTOR 5.6K OHM 1/8W		4	4
R405,406,514,802	113-562805-17	RESISTOR 5.6K OHM 1/8W		4	4
R803,133	113-562805-17	RESISTOR 5.6K OHM 1/8W		2	2
R209	113-563805-17	RESISTOR 56K OHM 1/8W		1	1
R581,604	113-681805-17	RESISTOR 680 OHM 1/8W		2	2
R517	113-683805-17	RESISTOR 68K OHM 1/8W		1	1
R215,216	113-821805-17	RESISTOR 820 OHM 1/8W		2	2
R105	113-822805-17	RESISTOR 8.2K OHM 1/8W		1	1
C510	122-301400-00	TRIMMER CAP. 30P		1	1
C117,118	123-101350-10	CERAMIC CAP. 100pF		2	2
C204,205	123-102370-10	CERAMIC CAP. 0.001uF		2	2
C104,106(504)	123-223370-10	CERAMIC CAP. 0.022uF		3	2
C509	123-300370-10	CERAMIC CAP. 30PF		1	1
C114	123-330370-10	CERAMIC CAP. 33PF		1	1
C107,109,110,116	123-473370-10	CERAMIC CAP. 0.047uF		4	4
C507	123-7103ZG-XA	AXIAL LEAD CAP. 0.01uF		1	1
C103	123-7104ZG-XA	AXIAL LEAD CAP. 0.1uF		1	1
C202	123-7221ZG-XA	AXIAL LEAD CAP. 220PF		1	1
C101,113,511	123-7223ZG-XA	AXIAL LEAD CAP. 0.022uF		3	3
C129	125-102070-02	POLY CAP. 1000pF		1	1
C124	126-103071-01	MYLAR CAP. 0.01uF		1	1
C131,132	126-153071-01	MYLAR CAP. 0.015uF		2	2
C712,713(701,702)	126-154071-81	MYLAR CAP. 0.15uF		4	2
C401,402,133,134	126-222071-01	MYLAR CAP. 0.0022uF		4	4
C201,407,408,503	126-223071-01	MYLAR CAP. 0.022uF		4	4
C203	127-104078-01	ELECT CAP. 0.1uF 50V		1	1
C102,111,115,126	127-105078-31	ELECT CAP. 1uF 50V		4	4
C127,215,216,217	127-105078-31	ELECT CAP. 1uF 50V		4	4
C218,701,702	127-105078-31	ELECT CAP. 1uF 50V		3	3
C112,125,219	127-106078-01	ELECT CAP. 10uF 50V		3	3
C708,709	127-107038-01	ELECT CAP. 100uF 10V		2	2
C220,409,410	127-107038-31	ELECT CAP. 100uF 10V		3	3
C405	127-107048-31	ELECT CAP. 100uF 16V		1	1
C710,711,712	127-108048-01	ELECT CAP. 1000uF 16V		3	3
C128	127-225068-31	ELECT CAP. 2.2uF 35V		1	1
C411	127-226048-31	ELECT CAP. 22uF 16		1	1
C703,704,705	127-227048-31	ELECT CAP. 220uF 16V		3	3
C130,502	127-335078-31	ELECT CAP. 3.3uF 50V		2	2

VOLUME PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
R305,306,307,308	113-102805-12	RESISTOR 1K OHM 1/8W		4	4
R314	113-102805-12	RESISTOR 1K OHM 1/8W		1	1
R315	113-103805-12	RESISTOR 10K OHM 1/8W		1	1
R309	113-123805-12	RESISTOR 12K OHM 1/8W		1	1
R312,313	113-222805-12	RESISTOR 2.2K OHM 1/8W		2	2
R303,304	113-331805-12	RESISTOR 330 OHM 1/8W		2	2
R310,311	113-473805-12	RESISTOR 47K OHM 1/8W		2	2
R301,302	113-824805-12	RESISTOR 820K OHM 1/8W		2	2
	116-290031-73	TREBLE&BASS VOLUME		1	1
	116-33FK34-L3	MAIN VOLUME		1	1
C311,312	127-104078-31	ELECT CAP. 0.1uF 50V		2	2
C301,302,304,305	127-105078-31	ELECT CAP. 1uF 50V		4	4
C306,307,308,309	127-105078-31	ELECT CAP. 1uF 50V		4	4
C303,310,315	127-107048-01	ELECT CAP. 100uF 16V		3	3
C313,314	127-475068-31	ELECT CAP. 4.7uF 35V		2	2
Q301,302,303	131-473199-55	TRANSISTOR KTC-3199Y		3	3
Q303,304	131-603112-01	TRANSISTOR KSC-3112A		2	2
	172-028010-00	WIRE AWG28 100MM BLACK		1	1
	172-028010-02	WIRE AWG28 100MM RED		1	1
	190-C88503-00	VOLUME P.C.B		1	1
	191-300101-01	3 PINS HOUSING L=140MM		1	1
	191-400101-A1	4 PINS HOUSING L=120MM		1	1
	191-800101-01	8 PINS HOUSING L=170MM		1	1
	133-400001-81	HYBRID I.C YTC-0001		1	1

DECK ASS

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	818
R410	113-479205-12	RESISTOR 4.7 OHM 1/2W		1	1
	127-227048-31	ELECT CAP. 220uF 16V		1	1
	172-028009-05	WIRE 90MM PINK		1	1
	172-028017-01	WIRE 170MM BROWN		1	1
	174-811010-08	SHIELD WIRE L=100MM 3 PINS		1	1
	191-600102-01	HOUSING 6 PINS L=170MM		1	1
	445-2TN717-03	DECK TN-717MH-234 TANASHIN		1	1

MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
	173-821009-08	SHIELD WIRE 90MM 2PINS		1	1
	173-822016-08	SHIELD WIRE 160MM 2PINS		1	1
	174-882016-08	SHIELD WIRE 160MM 3PINS		1	1
	190-C883L1-00	MAIN P.C.B		-	1
	190-C88301-00	MAIN P.C.B		1	-
	191-01C882-01	WIRE AUTO-ANT		1	1
	191-03C882-00	RCA CONNECTOR LINE-OUT		1	1
	191-03C883-00	RCA CONNECTOR CD-INPUT		1	1
	191-A9C882-M2	CONNECTOR 9PIN MALE		1	1
	A08-610211-0S	FEEDTHROUGH 1000PF/50		1	1
	A14-928S83-70	F.F.C CONNECTOR 28PINS		1	1

FRONT PCB ASS

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	203	200
	113-102805-12	RESISTOR 1K OHM		1	1
	113-104805-12	RESISTOR 100K OHM		1	1
	113-222805-12	RESISTOR 2.2K OHM		1	1
	130-9003BR-00	BLINKING LED		1	1
	131-471267-55	TRANSISTOR KTA-1267Y		1	1
	172-028004-01	WIRE 40MM BROWN		1	1
	172-028004-02	WIRE 40MM RED		1	1
	172-028004-03	WIRE 40MM ORANGE		1	1
	187-304537-02	LAMP 14V 40mA		2	2
	190-C88331-09	FRONT P.C.B		1	1
	191-140101-01	14PINS HOUSING L=60MM		1	1
	630-062604-00	FIBER WASHER		1	1
	736-C88303-01	PIN M-BSBM		1	1
	771-C88302-00	SPRING		1	1
	836-CS8802-00	LAMP CAP AMBER		2	2
	848-C88301-00	LAMP HOLDER		1	1
	908-C88302-00	PIN CABINET		1	1
	147-110480-BL	TACT SWITCH 4PINS H=8MM		15	15

MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	818
R801,803	113-824805-17	RESISTOR 820K OHM 1/8W		2
C515	122-301400-00	TRIMMER CAP. 30pF		1
C117,137	123-101350-10	CERAMIC CAP.100pF		2
C509	123-200350-10	CERAMIC CAP. 20pF		1
C105,106,504	123-223270-10	CERAMIC CAP. 0.022uF		3
C107,109,110,116	123-473372-30	CERAMIC CAP. 0.047uF		4
C514	123-7103ZG-XA	AXIAL LEAD CAP. 0.01uF		1
C103	123-7104ZG-XA	AXIAL LEAD CAP. 0.1uF		1
C101,113,510	123-7223ZG-XA	AXIAL LEAD CAP. 0.022uF		3
C807	124-224061-03	TANTALIUM CAP. 0.22uF		1
C701,702,712,713	126-154071-01	MAILAR CAP. 0.15uF		4
C401,402	126-222071-01	MAILAR CAP. 0.0022uF		2
C407,410,503	126-223071-01	MAILAR CAP. 0.022uF		3
C102,111,115,719	127-105078-31	ELECT CAP. 1uF 50V		4
C804,710	127-106078-01	ELECT CAP. 10uF 50V		2
C112,711,720,213	127-107038-01	ELECT CAP. 100uF 10V		4
C703,704,705,706	127-107038-01	ELECT CAP. 100uF 10V		4
C709,714,715,716	127-107038-01	ELECT CAP. 100uF 10V		4
C717,718	127-107038-31	ELECT CAP. 100uF 10V		2
C408,409	127-107048-31	ELECT CAP. 100uF 10V		2
C405	127-108048-01	ELECT CAP. 100u 16V		1
C707,708	127-226048-31	ELECT CAP. 1000u 16V		2
C513,810	127-227028-31	ELECT CAP. 22uF 16		2
C806	127-227048-31	ELECT CAP. 220uF 6.3V		1
C811,518	127-335078-31	ELECT CAP. 220uF 16V		2
C502	127-336038-31	ELECT CAP. 3.3uF 50V		1
C803	127-475068-31	ELECT CAP. 33uF 10V		1
C209,403,404,813	127-475068-31	ELECT CAP. 4.7uF 35V		4
C814,512	127-475068-31	ELECT CAP. 4.7uF 35V		2
C831,832,516	127-475068-31	ELECT CAP. 4.7uF 35V		3
C208,501,505,506	127-476038-31	ELECT CAP. 47uF 10V		4
C913	127-476038-31	ELECT CAP. 47uF 10V		1
C108,805	127-476048-01	ELECT CAP. 47uF 16V		2
D102,401,402,502	130-134148-01	SILICON DIODE IN4148		4
D503,504,505,506	130-134148-01	SILICON DIODE IN4148		4
D507,508,509,510	130-134148-01	SILICON DIODE IN4148		4
D523,524,528,530	130-134148-01	SILICON DIODE IN4148		4
D531,537,539,540	130-134148-01	SILICON DIODE IN4148		4
D541,546,550,801	130-134148-01	SILICON DIODE IN4148		4
D802,803,806,511	130-134148-01	SILICON DIODE IN4148		4
D534	130-314001-00	RECTIFIER DIODE IN4001		1
D533	130-410047-00	ZENER DIODE 4.7V		1
D601	130-410091-00	ZENER DIODE 9.1V		1
D205,501	130-410100-00	ZENER DIODE 10V		2

MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	818
	003-141602-08	FM TUNER CET-502CNF		1
VR801	012-502321-06	R-SEMI FIXED 5KB		1
VR802	012-104360-06	R-SEMI FIXED 100KB		1
VR101	012-503321-06	R-SEMI FIXED 50KB		1
VR102	012-203360-08	R-SEMI FIXED 20KB		1
VR201	012-103360-08	R-SEMI FIXED 10KB		1
	102-270881-15	FM IFT COIL		1
CF101,102	107-107MS2-08	FM CERAMIC FILTER 10.7MS2		2
R108	113-100805-17	RESISTOR 10 OHM 1/8W		1
R107,813	113-101805-17	RESISTOR 100 OHM 1/8W		2
R114,208,401,807	113-102805-17	RESISTOR 1K OHM 1/8W		4
R815,804,238,240	113-102805-17	RESISTOR 1K OHM 1/8W		4
R818,801	113-102805-17	RESISTOR 1K OHM 1/8W		2
R101,501,513,815	113-103805-17	RESISTOR 10K OHM 1/8W		4
R816,811,877,103	113-103805-17	RESISTOR 10K OHM 1/8W		4
R106,117,209,403	113-104805-17	RESISTOR 100K OHM 1/8W		4
R404,505,506,507	113-104805-17	RESISTOR 100K OHM 1/8W		4
R508,509,102	113-104805-17	RESISTOR 100K OHM 1/8W		3
R407,408	113-121805-17	RESISTOR 120 OHM 1/8W		2
R503,504	113-122805-17	RESISTOR 1.2K OHM 1/8W		2
R110,121	113-153805-17	RESISTOR 15K OHM 1/8W		2
R604,605	113-181805-17	RESISTOR 180 OHM 1/8W		2
R703,704,708	113-220805-17	RESISTOR 22 OHM 1/8W		3
R113,707,812	113-220805-17	RESISTOR 22 OHM 1/8W		3
R409	113-221805-17	RESISTOR 220 OHM 1/8W		1
R104,118,131,144	113-223805-17	RESISTOR 22K OHM 1/8W		4
R451 452	113-223805-17	RESISTOR 22K OHM 1/8W		2
R701,702,705,706	113-229805-17	RESISTOR 2.2 OHM 1/8W		4
R116,511	113-330805-17	RESISTOR 33 OHM 1/8W		2
R111,112,115,502	113-331805-17	RESISTOR 330 OHM 1/8W		4
R529,810	113-332805-17	RESISTOR 3.3K OHM 1/8W		2
R122,512,119,519	113-333805-17	RESISTOR 33K OHM 1/8W		4
R520	113-333805-17	RESISTOR 33K OHM 1/8W		1
R802,606,607	113-394805-17	RESISTOR 390K OHM 1/8W		3
R814	113-470805-17	RESISTOR 47 OHM 1/8W		1
R109,519	113-472805-17	RESISTOR 4.7K OHM 1/8W		2
R120,124,516	113-473805-17	RESISTOR 47K OHM 1/8W		3
R405,406,242,518	113-562805-17	RESISTOR 5.6K OHM 1/8W		4
R808	113-562805-17	RESISTOR 5.6K OHM 1/8W		1
R581	113-681805-17	RESISTOR 680 OHM 1/8W		1
R806	113-682805-17	RESISTOR 6.8K OHM 1/8W		1
R130	113-683805-17	RESISTOR 68K OHM 1/8W		1
R219	113-820805-17	RESISTOR 820 OHM 1/8W		1
R805,105	113-822805-17	RESISTOR 8.2K OHM 1/8W		2

SK PCB ASS

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	818
VR901,902	012-203210-08	R-SEMI FIXED 20K		2
CF901	107-B456F1-16	CERAMIC RESONATOR		1
R905	113-100805-12	RESISTOR 10 OHM 1/8W		1
R903,924,951	113-102805-12	RESISTOR 1K OHM 1/8W		3
R918	113-103805-12	RESISTOR 10K OHM 1/8W		1
R922	113-104805-12	RESISTOR 100K OHM 1/8W		1
R923	113-123805-12	RESISTOR 12K OHM 1/8W		1
R904	113-181805-12	RESISTOR 180 OHM 1/8W		1
R911	113-220805-12	RESISTOR 22 OHM 1/8W		1
R910,902	113-222805-12	RESISTOR 2.2K OHM 1/8W		2
R920,931,932	113-223805-12	RESISTOR 22K OHM 1/8W		3
R920	113-273805-12	RESISTOR 27K OHM 1/8W		1
R919	113-330805-12	RESISTOR 33 OHM 1/8W		1
R901,925,926,927	113-332805-12	RESISTOR 3.3K OHM 1/8W		4
R928	113-333805-12	RESISTOR 3.3K OHM 1/8W		1
R909	113-473805-12	RESISTOR 33K OHM 1/8W		1
R908,906	125-102070-02	RESISTOR 47K OHM 1/8W		2
C923	126-102070-01	POLY CAP. 1000pF		1
C908,910	126-102071-01	MYLAR CAP. 0.001uF		2
C919	126-103071-01	MYLAR CAP. 0.01uF		1
C926,927	126-153071-01	MYLAR CAP. 0.015uF		2
C909	126-222071-01	MYLAR CAP. 0.002uF		1
C928,929	126-332071-01	MYLAR CAP. 0.0033uF		2
C903	126-473071-01	MYLAR CAP. 0.047uF		1
C913	126-683071-01	MYLAR CAP. 0.068uF		1
C924,921,951	127-105078-31	ELECT.CAP. 1uF 50V		3
C906,920	127-106078-30	ELECT.CAP. 10uF 50V		2
C918	127-107038-31	ELECT.CAP. 100uF 10V		1
C912,915	127-226048-31	ELECT.CAP. 22uF 16V		2
C905	127-334078-01	ELECT.CAP. 0.33uF 50V		1
C925,922	127-335068-31	ELECT.CAP. 3.3uF 35V		2
C904,911	127-474078-01	ELECT.CAP. 0.47uF 50V		2
C914,917,925,901	127-475068-31	ELECT.CAP. 4.7uF 35V		4
C902,907,916	127-476038-31	ELECT.CAP. 47uF 10V		3
D901,902,903	130-134148-00	SILICON DIODE IN4148		3
D904	130-410030-00	ZENER DIODE 3V		1
Q901	131-473199-55	TRANSISTOR KTC-3199-Y2		1
IC-901	133-102220-16	LA-2220		1
IC-2	133-400086-81	YY-86		1
IC-3	133-103370-16	LA-3370		1
	190-C88207-00	SK P.C.B		1
	A14-A00216-XX	PIN CONNECTOR 2.5MM 6 PINS		2

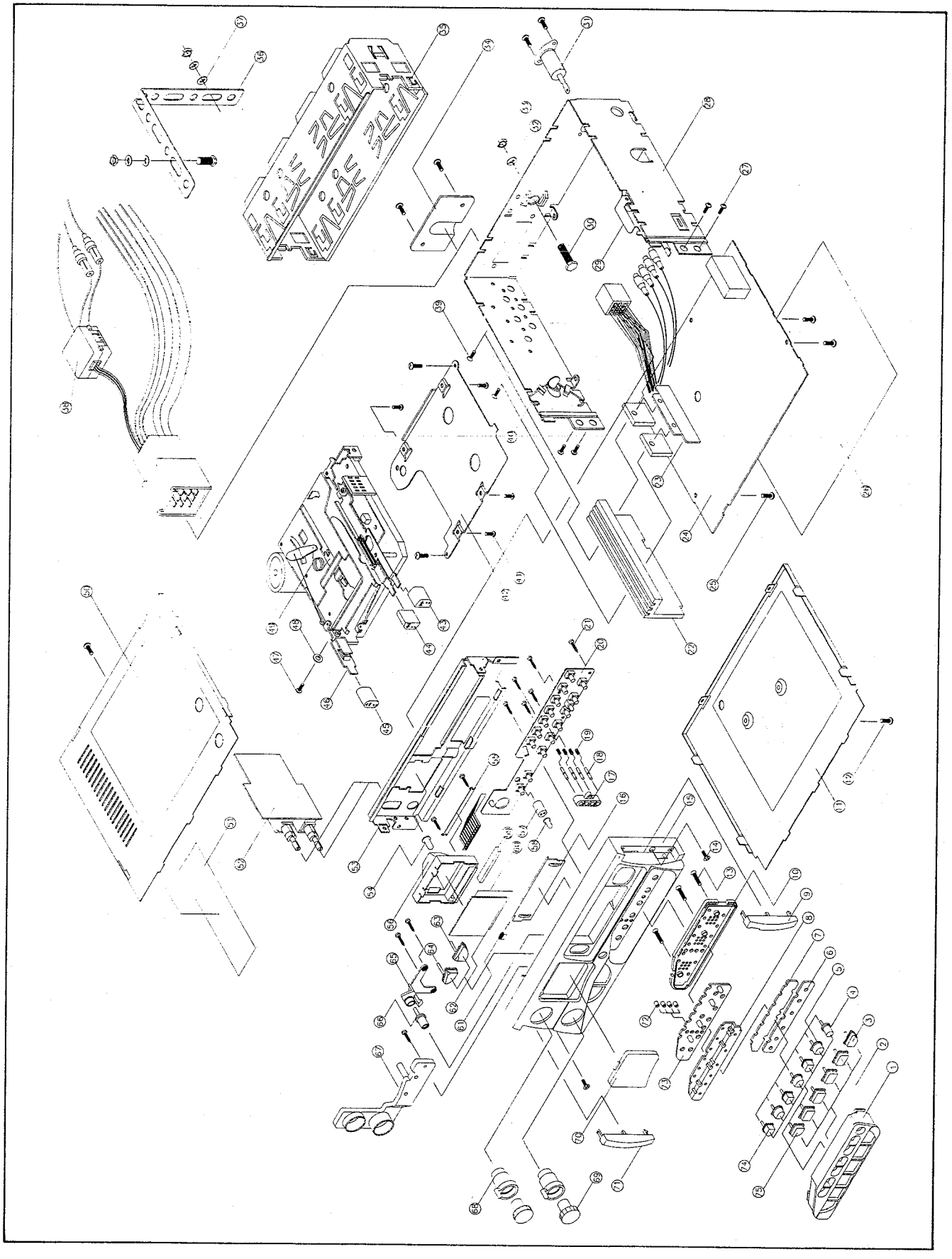
MAIN PCB ASS'Y

LOCATION	PARTS NUMBER	DESCRIPTION	Gelhard order NO	818
Q206	131-232120-25	TRANSISTOR C2120		1
Q513,514,801	131-471267-55	TRANSISTOR KTA-1267Y		3
Q102,501,502,503	131-473199-55	TRANSISTOR KTC-3199-Y2		4
Q504,505,506,508	131-473199-55	TRANSISTOR KTC-3199-Y2		4
Q802,803,804	131-473199-55	TRANSISTOR KTC-3199-Y2		3
Q101	131-47380T-45	TRANSISTOR KTC-380TMO		1
Q214,215	131-603112-01	TRANSISTOR KSC-3112A		2
Q518	131-233205-25	TRANSISTOR C3205Y		1
IC-1	133-101140-16	LA-1140		1
IC-2	133-102211-16	LA-2211		1
IC-4	133-103161-16	LA-3161		1
IC-6	133-1723G6-43	uPD-1723GF-643		1
IC-7,IC-8	133-113118-15	HA-13118		2
IC-9	133-578005-64	KEC-78L005AP		1
CON-1	160-403255-21	CONNECTOR 3 PINS 2.5MM		1
CON-2	160-404205-21	CONNECTOR 4 PINS 2.0MM		1
CON-3	160-408255-21	CONNECTOR 8 PINS 2.5MM		1
CON-4	160-406255-21	CONNECTOR 6 PINS 2.5MM		1
CON-5	160-404255-21	CONNECTOR 4 PINS 2.5MM		1
CON-7	160-414204-21	CONNECTOR 14 PINS 2.0MM		1
	173-821009-08	SHIELD WIRE 90MM		1
	173-822016-08	SHIELD WIRE 160MM		1
	190-S88301-00	MAIN P.C.B		1
	191-03C882-00	RCA CONNECTOR		1
	A08-610211-0S	FEEDTHROUGH		1
	A14-928S83-70	F.F.C CONNECTOR		1
	137-045000-XX	CRYSTAL 4.5MHz		1

PARTS LIST GENERAL (GXR-203DT)

NO	PARTS NO	DESCRIPTION	MATERIAL	QTY	NO	PARTS NO	DESCRIPTION	MATERIAL	QTY
1	901-C88301-02	TOP CABINET	ABS	1	39	501-305010-10	MACHINE SCREW M3X10 F/M		2
2	958-C88304-00	PUSH BUTTON (C)	ABS	4	40	777-C88101-00	LOCKING SPRING	SPW	1
3	958-C88305-00	PUSH BUTTON (D)	ABS	1	41	504-305004-10	MACHINE SCREW 3X4 B/M		4
4	968-C88303-00	ST BUTTON	ABS	1	42	720-C88301-00	DECK BRACKET	E.G.I	1
5	968-C88302-00	FUNCTION BUTTON	ABS	3	43	958-885N05-00	F/F BUTTON	ABS	1
6	817-C88301-00	BUTTON CUSHION (A)	SPONGE	1	44	958-885N06-00	REW BUTTON	ABS	1
7	817-C88302-00	BUTTON CUSHION (B)	SPONGE	1	45	958-885N04-00	EJECT BUTTON	ABS	1
8	990-C88305-00	D REFLECTOR	PC	1	46	749-C88101-00	EJECT LEVER	E.G.I	1
9	949-C88302-01	TRIM PLATE (R)	ABS	1	47	500-264504-10	MACHINE SCREW 2.6X4 P/M		1
10	959-C88301-00	BOTTOM PLATE	ABS	1	48	533-050026-02	SPRING WASHER OD=5 ID=2.6 T=0.7		1
11	793-C88101-00	BOTTOM CHASSIS	E.G.I	1	49	445-2TN717-03	AUTO REVERSE DECK		1
12	504-305004-10	MACHINE SCREW 3X4 B\M		7	50	791-C88101-00	TOP CHASSIS	E.G.I	1
13	511-260508-00	SELF-TAPPING SCREW 2.6X8 K/H/A		3	51	622-C88101-00	FELT 110X130 T=0.3	FELT	1
14	501-264510-00	MACHINE SCREW M2.6X10 F/M		2	52	190-C88503-00	PCB (VOLUME)	PCB	1
15	900-C88302-00	FRONT NOSE	ABS	1	53	701-C88301-00	FRONT CHASSIS	E.G.I	1
16	911-C88101-00	TAPE DOOR	PC	1	54	836-C88104-00	LAMP CAP	AMBER	1
17	980-C88302-00	PIN CABINET	PC	1	55	722-C88102-00	FCC BRACKET	E.G.I	1
18	736-C88303-01	PIN	BSBM	4	56	968-C88104-00	LCD CAP	ABS	1
19	771-C88302-00	SPRING	SPRING	4	57	848-C88301-00	LAMP HOLDERN	RUBBER	1
20	190-C88331-09	PCB (DOUBLE SIDE THROUGH)	PCB	1	58	836-CS8802-00	LAMP CAP	AMBER	6
21	516-170205-10	TAPPING 1 SCREW 1.7X5 P/A		11	59	164-136883-18	INTER CONNCOETR		1
22	779-C88101-00	HEAT SINK	SWP	1	60	631-C88102-00	LCD FILM	LEXAN	1
23	722-C88101-00	IC BRACKET	E.G.I	1	61	771-C88101-00	CASSETE DOOR SPRING	D=0.3 SWP	1
24	190-S88301-00	PCB (MAIN 883SDK)	PCB	1	62	135-507388-DL	LCD DISPLAY		1
25	518-300305-10	SELF-TAPPING 3X5 B/T/P		3	63	958-C88302-00	PUSH BUTTON (A)	ABS	1
26	631-C88101-00	BOTTOM FIBER 168X138	FIBER	1	64	958-C88301-00	PUSH BUTTON (A)	ABS	1
27	518-300104-10	SELF-TAPPING SCREW 3X4 B\T\P		13	65	929-C88301-00	LOCK PLATE	ABS	1
28	708-C88102-00	MAIN CHASSIS	E.G.I	1	66	997-C88301-00	RELEASE BUTTON	ABS	1
29	736-C88101-01	LOCKING SPRING SUS304 T=0.5		1	67	990-C88304-00	VOLUME REFLECTOR	ACRYL	1
30	506-506518-12	HEXAGON SCREW M5X18		2	68	973-C88101-00	INNER KNOB	ABS	1
31	784-C88200-00	ANTENNA SOCKET	METAL	1	69	973-C88102-00	OUTER KNOB	ABS	1
32	533-090052-02	SPRING WASHER M5		3	70	990-C88303-00	LCD WINDOW	ACRYL	1
33	520-506540-90	NUT M5	E.G.I	3	71	949-C88301-00	TRIM PLATE (L)	ABS	1
34	786-883M01-00	CORD BRACKET	E.G.I	1	72	736-C88304-01	PIN F	BSBM	1
35	722-035680-02	MOUTING CASE	E.G.I	1	73	190-C88302-00	PCB (KEY BOX)	PCB	1
36	722-013028-01	MOUNTING PLATE	E.G.I	1	74	968-C88301-00	FUNCTION BUTTON	ABS	1
37	534-093010-03	PLANE WASHER ID=3 OD=9 T=1		2	75	958-C88303-00	PUSH BUTTON (B)	ABS	1
38	939-CS8801-00	FILTER&FUSE BOX	PC	1					

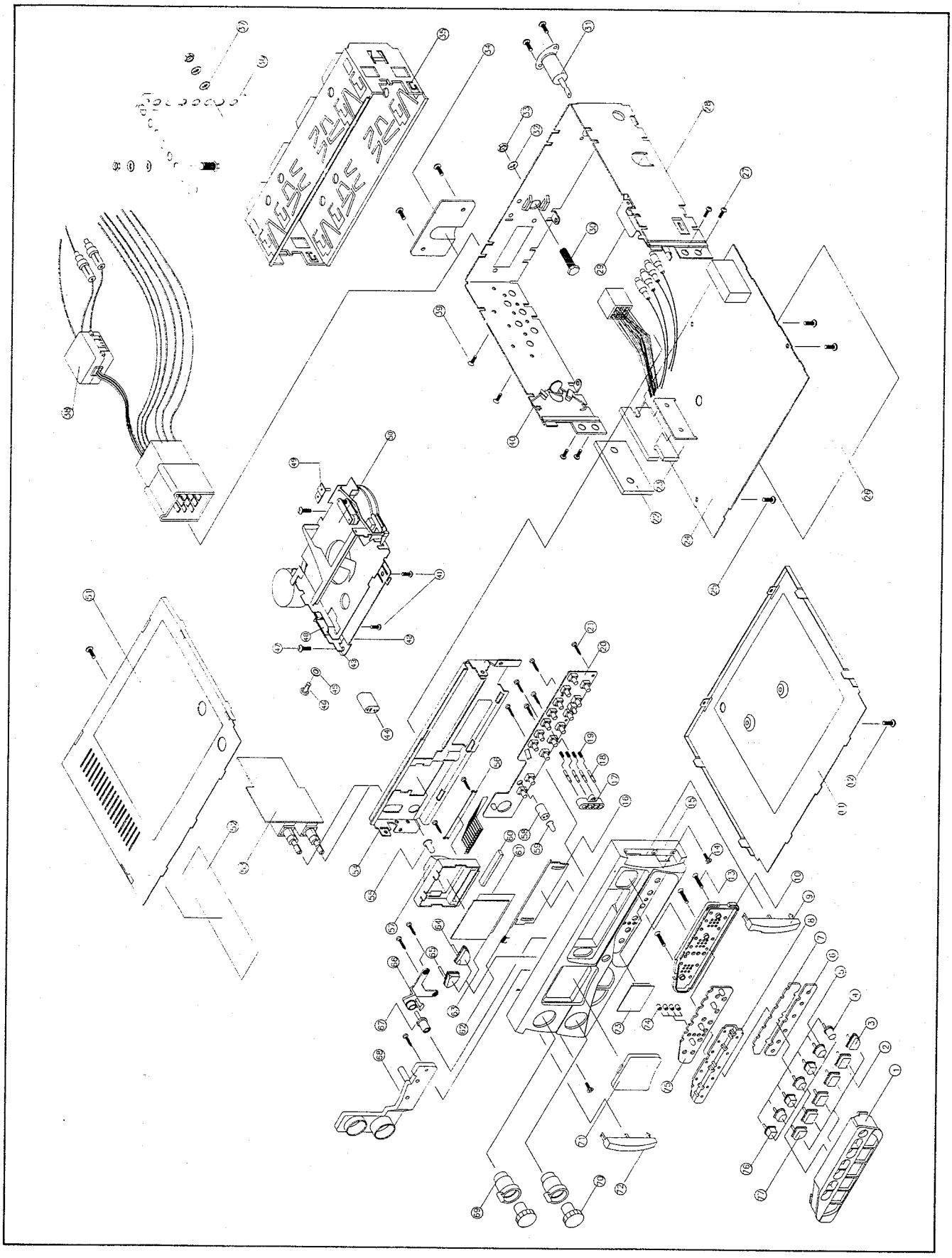
CABINET EXPLODED VIEW(GXR-203DT)



PARTS LIST GENERAL (GXR-200DT)

NO	PARTS NO	DESCRIPTION	MATERIAL	QTY	NO	PARTS NO	DESCRIPTION	MATERIAL	QTY
1	901-C88301-02	TOP CABINET	ABS	1	40	777-C88101-00	LOCKING SPRING	SPW	1
2	958-C88304-00	PUSH BUTTON (C)	ABS	4	41	504-305004-10	MASHINE SCREW M3X4 B/M		2
3	958-C88305-00	PUSH BUTTON (D)	ABS	1	42	720-683002-00	DECK BRACKER (A)	E.G.I	1
4	968-C88303-00	ST BUTTON	ABS	1	43	749-881S01-00	EJECT LEVER (A)	E.G.I	1
5	968-C88302-00	FUNCTION BUTTON	ABS	3	44	958-885S01-00	EJECT BUTTON	ABS	1
6	817-C88301-00	BUTTON CUSHION (A)	SPONGE	1	45	553-050026-02	SPRING WASHER		1
7	817-C88302-00	BUTTON CUSHION (B)	SPONGE	1	46	500-264504-10	MACHINE SCREW M2.6X4 P/M		1
8	990-C88305-00	D REFLECTOR	PC	1	47	518-300104-10	MACHINE SCREW 3X4 B/T/P		1
9	949-C88302-01	TRIM PLATE (R)	ABS	1	48	749-881S02-00	EJECT LEVER (B)	E.G.I	1
10	959-C88301-00	BOTTOM PLATE	ABS	1	49	720-683001-00	DECK BRACKET (B)	E.G.I	1
11	793-C88101-00	BOTTOM CHASSIS	E.G.I	1	50	445-130NX-03	AUTO STOP DECK		1
12	504-305004-10	MACHINE SCREW 3X4 B\M		7	51	791-C88101-00	TOP CHASSIS	E.G.I	1
13	511-260508-00	SELF-TAPPING SCREW 2.6X8 K/H/A		3	52	622-C88101-00	FELT 110X30 T=0.3	FELT	1
14	501-264510-00	MACHINE SCREW M2.6X10 F/M		2	53	190-C88503-00	PCB (VOLUME)	PCB	1
15	900-C88302-00	FRONT NOSE	ABS	1	54	701-C88301-00	FRONT CHASSIS	E.G.I	1
16	911-C88101-00	TAPE DOOR	PC	1	55	836-C88104-00	LAMP CAP	AMBER	1
17	980-C88302-00	PIN CABINET	PC	1	56	722-C88102-00	FCC BRACKET	E.G.I	1
18	736-C88303-01	PIN	BSBM	4	57	968-C88104-00	LCD CAP	ABS	1
19	771-C88302-00	SPRING	SPRING	4	58	848-C88301-00	LAMP HOLDERN	RUBBER	1
20	190-C88331-09	PCB (DOUBLE SIDE THROUGH)	PCB	1	59	836-CS8802-00	LAMP CAP	AMBER	6
21	516-170205-10	TAPPING 1 SCREW 1.7X5 P/A		11	60	164-136883-18	INTER CONNCOETR		1
22	779-C88102-00	HEAT-SINK	ALP	1	61	631-C88102-00	LCD FILM	LEXAN	1
23	722-C88103-00	IC BRACKET	E.G.I	1	62	771-C88101-00	CASSETTE DOOR SPRING D=0.3	SWP	1
24	190-S88301-00	PCB (MAIN 883SDK)	PCB	1	63	135-507388-DL	LCD DISPLAY		1
25	518-300305-10	SELF-TAPPING 3X5 B/T/P		3	64	958-C88302-00	PUSH BUTTON (A)	ABS	1
26	631-C88101-00	BOTTOM FIBER 168X138	FIBER	1	65	958-C88301-00	PUSH BUTTON (A)	ABS	1
27	518-300104-10	SELF-TAPPING SCREW 3X4 B\T\P		13	66	929-C88301-00	LOCK PLATE	ABS	1
28	708-C88102-00	MAIN CHASSIS	E.G.I	1	67	997-C88301-00	RELEASE BUTTON	ABS	1
29	736-C88101-01	LOCKING SPRING SUS304 T=0.5		1	68	990-C88304-00	VOLUME REFLECTOR	ACRYL	1
30	506-506518-12	HEXAGON SCREW M5X18		2	69	973-C88101-00	INNER KNOB	ABS	1
31	784-C88200-00	ANTENNA SOCKET	METAL	1	70	973-C88102-00	OUTER KNOB	ABS	1
32	533-090052-02	SPRING WASHER M5		3	71	990-C88303-00	LCD WINDOW	ACRYL	1
33	520-506540-90	NUT M5		3	72	949-C88301-00	TRIM PLATE (L)	ABS	1
34	786-883M01-00	CORD BRACKET	E.G.I	1	73	966-885S01-01	TAPE PLATE	ABS	1
35	722-035680-02	MOUTING CASE	E.G.I	1	74	736-C88304-01	PIN F	BSBM	1
36	722-013028-01	MOUNTING PLATE	E.G.I	1	75	190-C88302-00	PCB (KEY BOX)	PCB	1
37	534-093010-03	PLANE WASHER ID=3 OD=9 T=1		2	76	968-C88301-00	FUNCTION BUTTON	ABS	1
38	939-CS8801-00	FILTER&FUSE BOX	PC	1	77	958-C88303-00	PUSH BUTTON (B)	ABS	1
39	501-305010-10	MACHINE SCREW M3X10 F/M	2						

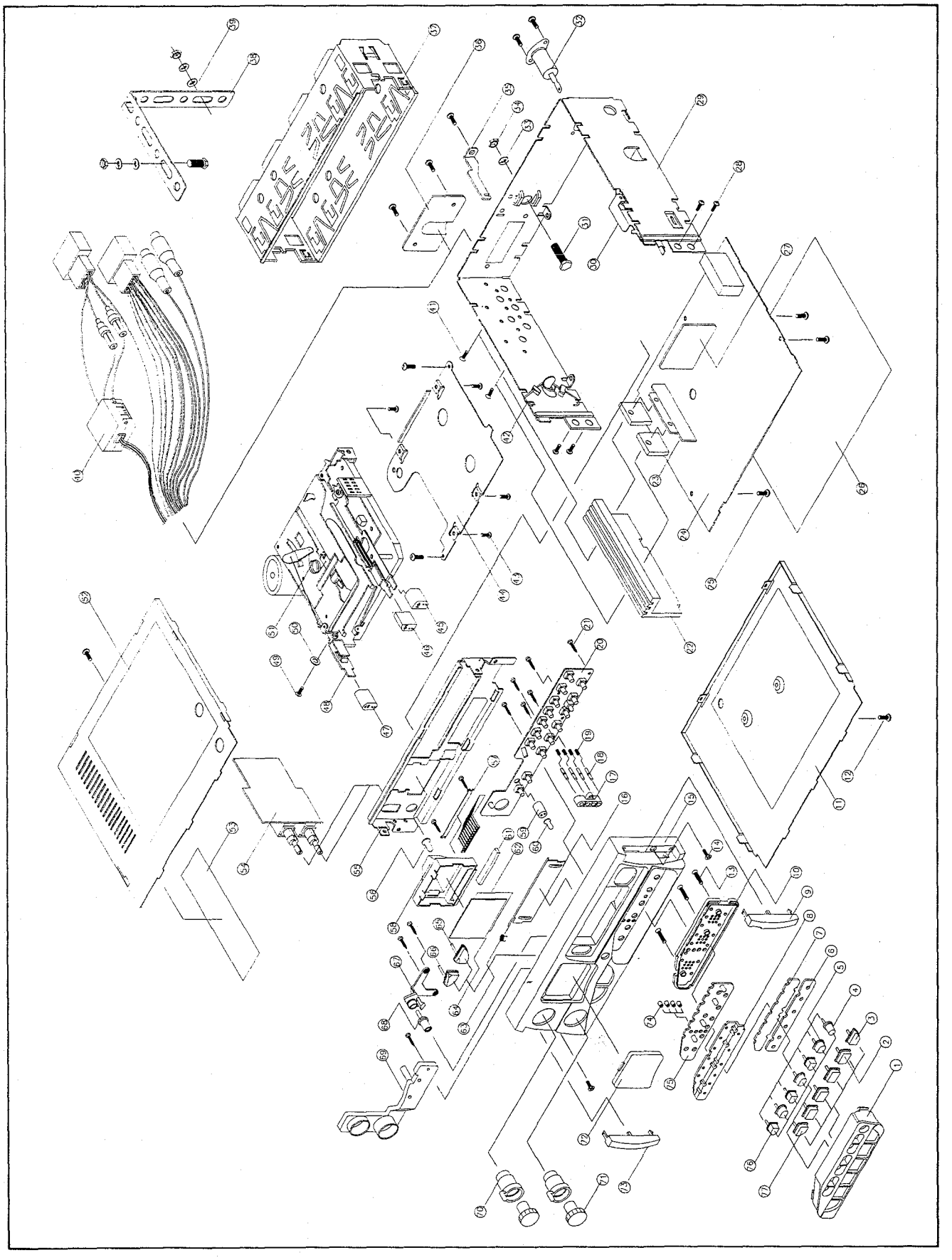
CABINET EXPLODED VIEW(GXR-200DT)



PARTS LIST GENERAL (GXR-818DT)

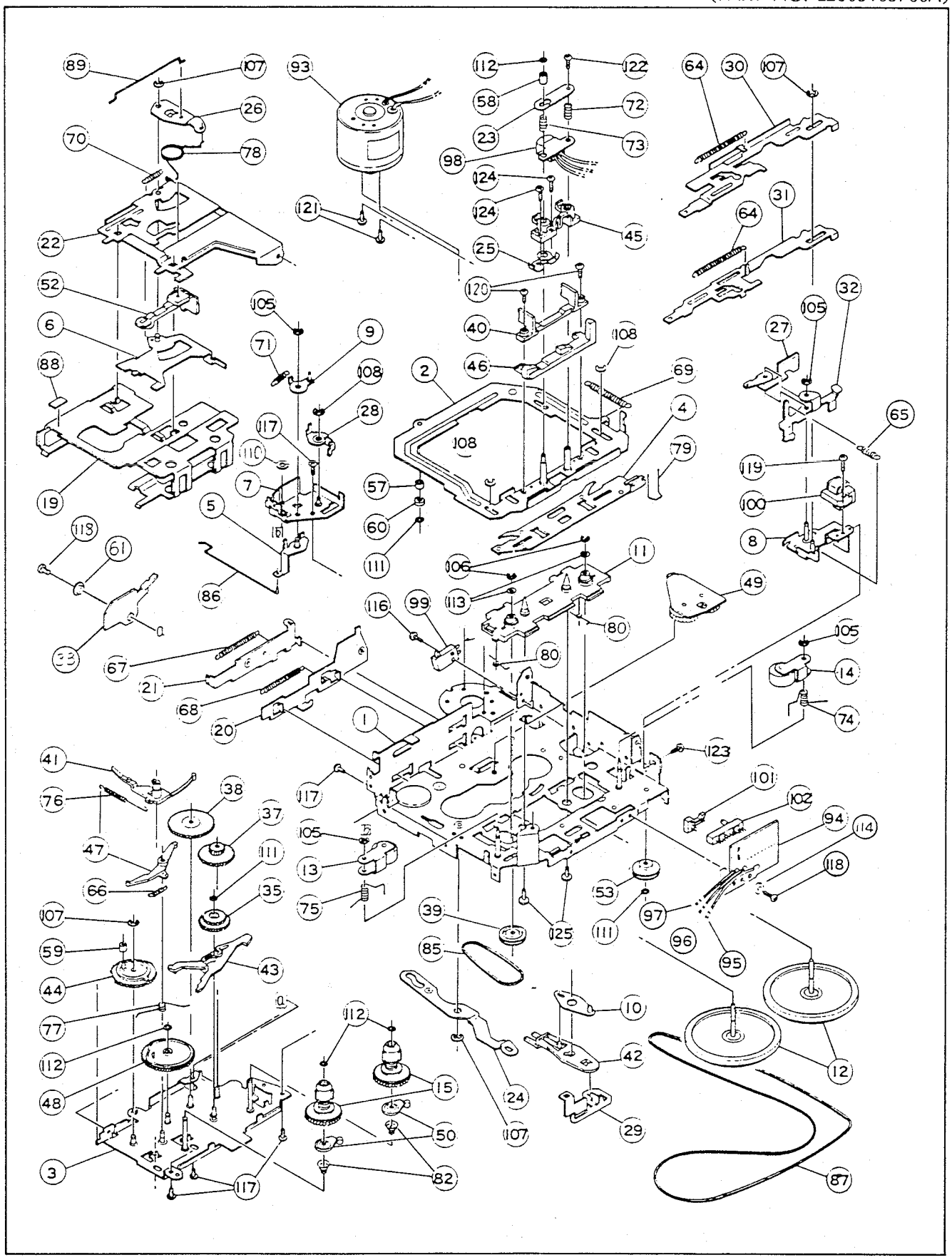
NO	PARTS NO	DESCRIPTION	MATERIAL	QTY	NO	PARTS NO	DESCRIPTION	MATERIAL	QTY
1	901-C88301-02	TOP CABINET	ABS	1	40	939-CS8801-00	FILTER&FUSE BOX	PC	1
2	958-C88304-00	PUSH BUTTON (C)	ABS	4	41	501-305010-10	MACHINE SCREW M3X10 F/M		2
3	958-C88305-00	PUSH BUTTON (D)	ABS	1	42	777-C88101-00	LOCKING SPRING	SPW	1
4	968-C88303-00	ST BUTTON	ABS	1	43	504-305004-10	MACHINE SCREW 3X4 B/M		4
5	968-C88302-00	FUNCTION BUTTON	ABS	3	44	720-C88301-00	DECK BRACKET	E.G.I	1
6	817-C88301-00	BUTTON CUSHION (A)	SPONGE	1	45	958-885N05-00	F/F BUTTON	ABS	1
7	817-C88302-00	BUTTON CUSHION (B)	SPONGE	1	46	958-885N06-00	REW BUTTON	ABS	1
8	990-C88305-00	D REFLECTOR	PC	1	47	958-885N04-00	EJECT BUTTON	ABS	1
9	949-C88302-01	TRIM PLATE (R)	ABS	1	48	749-C88101-00	EJECT LEVER	E.G.I	1
10	959-C88301-00	BOTTOM PLATE	ABS	1	49	500-264504-10	MACHINE SCREW 2.6X4 P/M		1
11	793-C88101-00	BOTTOM CHASSIS	E.G.I	1	50	533-050026-02	SPRING WASHER OD=5 ID=2.6 T=0.7		1
12	504-305004-10	MACHINE SCREW 3X4 B\M		7	51	445-2TN717-03	AUTO REVERSE DECK		1
13	511-260508-00	SELF-TAPPING SCREW 2.6X8 K/H/A		3	52	791-C88101-00	TOP CHASSIS	E.G.I	1
14	501-264510-00	MACHINE SCREW M2.6X10 F/M		2	53	622-C88101-00	FELT 110X30 T=0.3	FELT	1
15	900-C88302-00	FRONT NOSE	ABS	1	54	190-C88503-00	PCB (VOLUME)	PCB	1
16	911-C88101-00	TAPE DOOR	PC	1	55	701-C88301-00	FRONT CHASSIS	E.G.I	1
17	980-C88302-00	PIN CABINET	PC	1	56	836-C88104-00	LAMP CAP	AMBER	1
18	736-C88303-01	PIN	BSBM	4	57	722-C88102-00	FCC BRACKET	E.G.I	1
19	771-C88302-00	SPRING	SPRING	4	58	968-C88104-00	LCD CAP	ABS	1
20	190-C88331-09	PCB (DOUBLE SIDE THROUGH)	PCB	1	59	848-C88301-00	LAMP HOLDERN	RUBBER	1
21	516-170205-10	TAPPING 1 SCREW 1.7X5 P/A		11	60	836-CS8802-00	LAMP CAP	AMBER	6
22	779-C88101-00	HEAT SINK	SWP	1	61	164-136883-18	INTER CONNCOETR		1
23	722-C88101-00	IC BRACKET	E.G.I	1	62	631-C88102-00	LCD FILM	LEXAN	1
24	190-S88301-00	PCB (MAIN 883SDK)	PCB	1	63	771-C88101-00	CASSETTE DOOR SPRING	D=0.3 SWP	1
25	518-300305-10	SELF-TAPPING 3X5 B/T/B		3	64	135-507388-DL	LCD DISPLAY		1
26	631-C88101-00	BOTTOM FIBER 168X138	FIBER	1	65	958-C88302-00	PUSH BUTTON (A)	ABS	1
27	190-C88207-00	PCB SK	PCB	1	66	958-C88301-00	PUSH BUTTON (B)	ABS	1
28	518-300104-10	SELF-TAPPING SCREW 3X4 B\T\P		13	67	929-C88301-00	LOCK PLATE	ABS	1
29	708-C88102-00	MAIN CHASSIS	E.G.I	1	68	997-C88301-00	RELEASE BUTTON	ABS	1
30	736-C88101-01	LOCKING SPRING SUS304 T=0.5		1	69	990-C88304-00	VOLUME REFLECTOR	ACRYL	1
31	506-506518-12	HEXAGON SCREW M5X18		2	70	973-C88101-00	INNER KNOB	ABS	1
32	784-C88200-00	ANTENNA SOCKET	METAL	1	71	973-C88102-00	OUTER KNOB	ABS	1
33	533-090052-02	SPRING WASHER M5		3	72	990-C88303-00	LCD WINDOW	ACRYL	1
34	520-506540-90	NUT M5		3	73	949-C88301-00	TRIM PLATE (L)	ABS	1
35	722-C88501-00	SK BRACKET	E.G.I	1	74	736-C88304-01	PIN F	BSBM	1
36	786-883M01-00	CORD BRACKET	E.G.I	1	75	190-C88302-00	PCB (KEY BOX)	PCB	1
37	722-035680-02	MOUTING CASE	E.G.I	1	76	968-C88301-00	FUNCTION BUTTON	ABS	1
38	722-013028-01	MOUNTING PLATE	E.G.I	1	77	958-C88303-00	PUSH BUTTON (B)	ABS	1
39	534-093010-03	PLANE WASHER ID=3 OD=9 T=1		2					

CABINET EXPLODED VIEW(GXR-818DT)

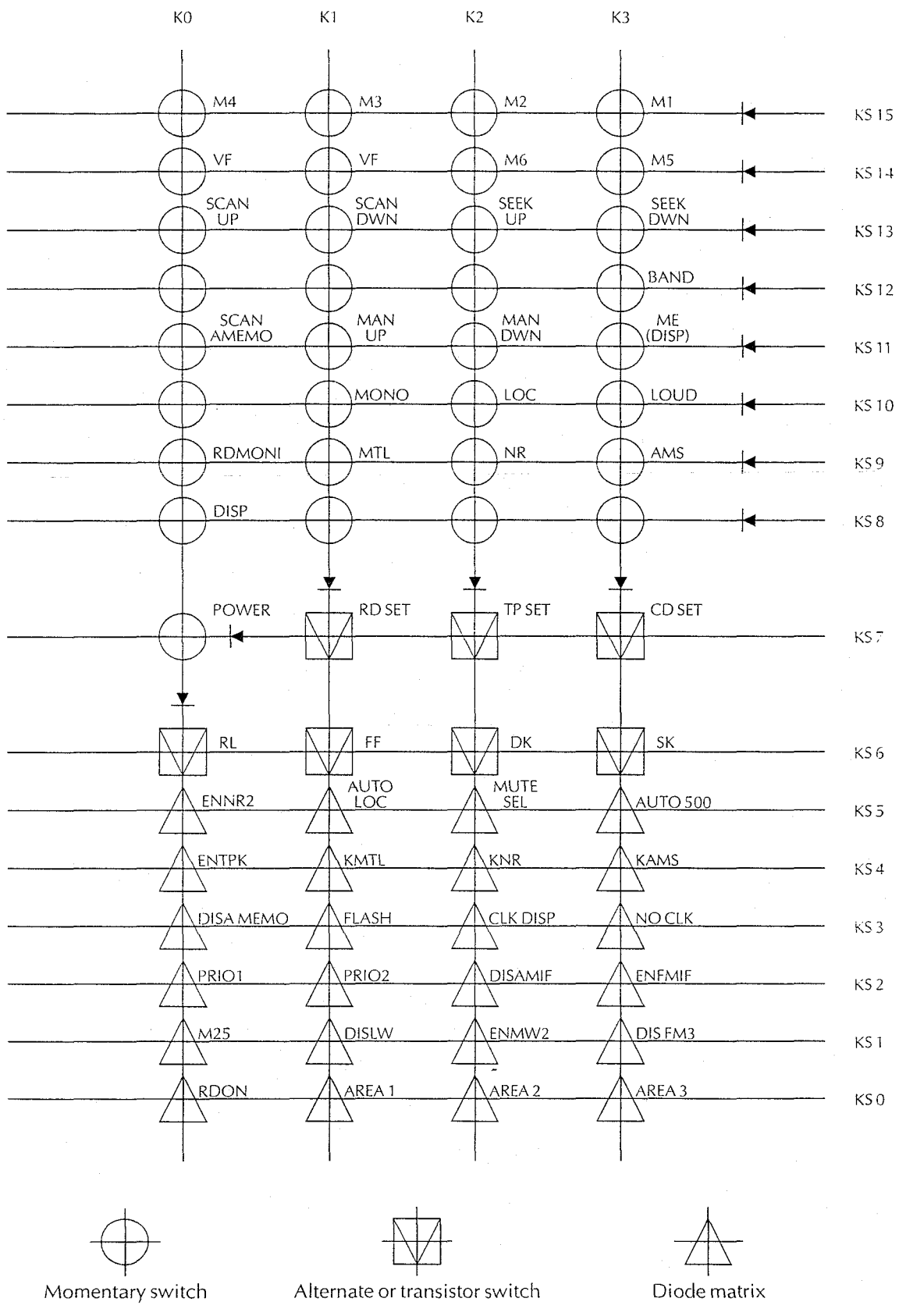


EXPLODED VIEW MECHANISM, CDS-36MS

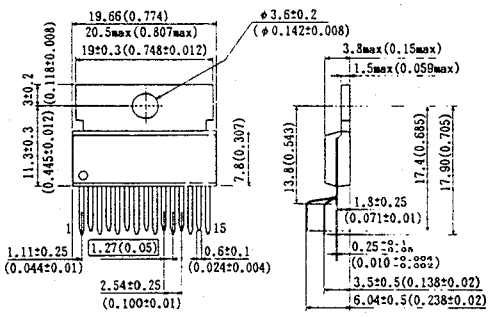
(PART NO. E2005105700A)

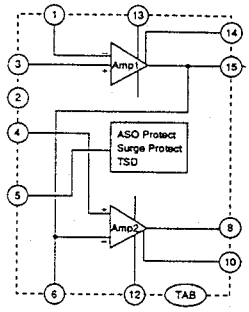


STRUCTURES OF KEY MATRIX

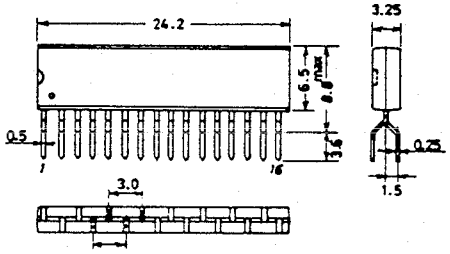


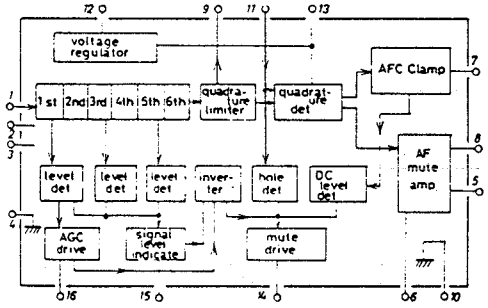
IC. EQUIVALENT CONFIGURATION



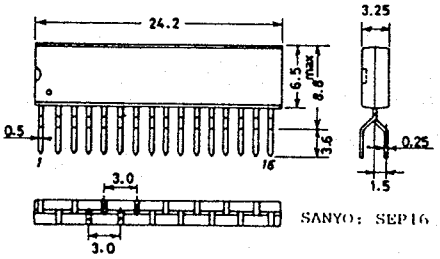


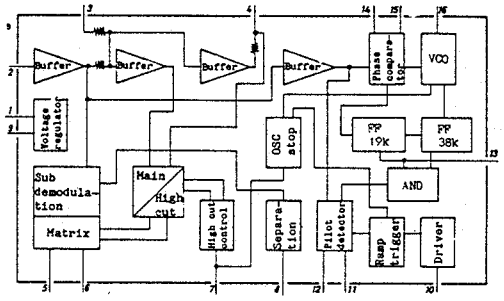
A13118



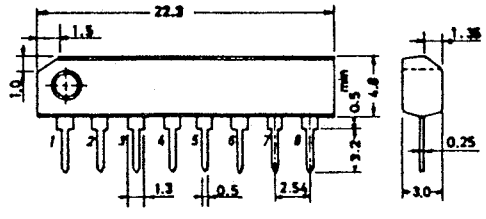


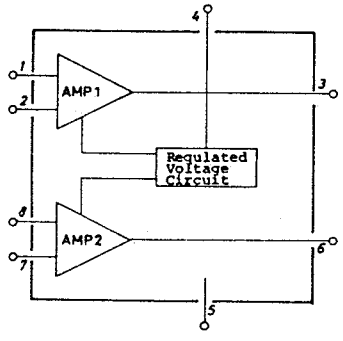
LA1140





LA3370





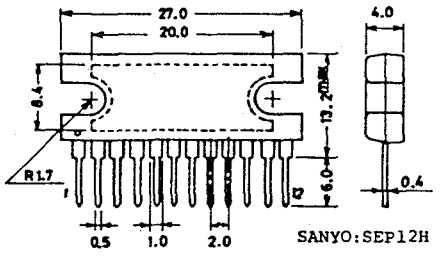
LA3161

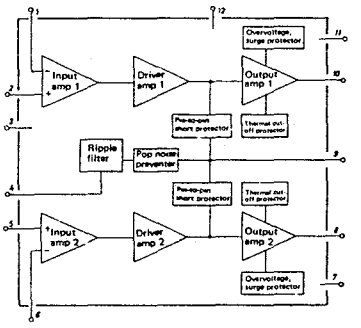
■PARTS LIST

NO.	OESCRIRTION	REFERENCE NO.	Q'TY
1	MAIN CHASSIS ASS'Y	3-0036-101	(1)
2	HEAD PLATE ASS'Y	3-0036-102	(1)
3	REEL BASE ASS'Y	3-0036-109	(1)
4	FR CHANGE ARM ASS'Y	3-0036-110	(1)
5	CHANGE LEVER(A) ASS'Y	3-0036-114	(1)
6	EJECT CAM LOCK ASS'Y	3-0036-119	(1)
7	BRACKET (R) ASS'Y	3-0036-120	(1)
8	BRACKET (F) ASS'Y	3-0036-121	(1)
9	PROGRAM ARM ASS'Y	3-0036-124	(1)
10	FR ARM(A) ASS'Y	3-0036-125	(1)
11	CM BRACKET ASS'Y	3-0036-216	(1)
12	FLYWHEEL ASS'Y	3-0036-601-01	2
13	PINCH ARM (R) ASS'Y	3-0036-611	(1)
14	PINCH ARM (R) ASS'Y	3-0036-612	(1)
15	REEL SPINDLE ASS'Y	3-0036-660	(2)
16			
17			
18			
19	CASSETTE HOLDER	1-0036-103-01	1
20	EJECT CAM ASS'Y	3-0036-106	(1)
21	EJECT LEVER	1-0036-107-00	1
21	CASSETTE HANGER	1-0036-108-00	1
23	SPRING PUSH PLATE	1-0036-115-00	1
24	REVERSE LEVER	1-0036-116-01	1
25	ADJUSTER CAM	1-0036-117-00	1
26	CENTER PLATE	1-0036-118-00	1
27			
28	CHANGE LEVER (B)	1-0036-123-03	1
29	FR ARM (B)	1-0036-126-00	1
30	E LEVER	1-0036-127-00	1
31	REW LEVER	1-0036-128-00	1
32	LOCK ARM	1-0036-129-00	1
33	SW ARM	1-0036-130-00	1
34			
35	IDLE GEAR	1-0036-201-00	1
36	TU GEAR	1-0036-202-01	2
37	REDUCTION GEAR (A)	1-0036-204-00	1
38	REDUCTION GEAR (B)	1-0036-203-00	1
39	PULLEY GEAR	1-0036-205-00	1
40	TAPE GUIDE	1-0036-206-01	1
41	RATCHET	1-0036-207-01	1
42	FF ARM	1-0036-208-00	1
43	SENSOR ARM	1-0036-209-00	1
44	SELECTOR GEAR	1-0036-210-01	1
45	ADJUSTER ARM	1-0036-211-01	1
46	ADJUSTER LINK	1-0036-212-01	1
47	GEAR LOCK ARM	1-0036-213-00	1
48	DETECTOR GEAR	1-0036-214-00	1
49	TU GEAR ARM	1-0036-215-01	1
50	DETECTOR ARM	1-0036-217-00	2
51	PROGRAM ARM COLLAR	1-0036-218-00	1
52	TAPE HOOKER	1-0058-204-02	1
53	IDLE PULLEY (A)	1-0058-221-01	1
54			
55			
56			
57	HP ROLLER (B)	1-0036-324-00	1
58	FF ROLLER	1-0036-304-01	1
59	COLLAR	1-0036-318-02	1
60	HP ROLLER (A)	1-0036-302-00	1
61	SW ARM COLLAR	1-0036-329-00	1
62	TU GEAR SHAFT	1-0036-330-00	2
63			
64	FF/REW LEVER SPRING	1-0036-401-01	2
65	LOCK LEVER SPRING	1-0036-402-01	1
66	GEAR LOCK ARM SPRING	1-0036-403-02	1
67	EJECT LEVER SPRING	1-0036-404-01	1
68	EJECT CAM SPRING	1-0036-405-02	1
69	HEAK PLATE SPRING	1-0036-406-01	1
70	EJECT CAM LOCK SPRING	1-0036-407-02	1
71	PROGRAM ARM SPRING	1-0036-408-00	2
72	ADJUSTER ARM SPRING (A)	1-0036-410-01	1

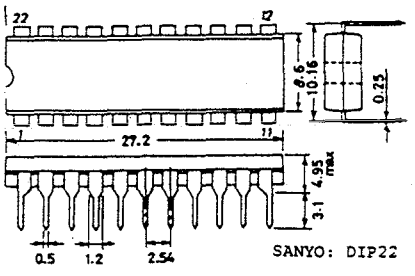
NO.	OESCRIRTION	REFERENCE NO.	Q'TY
73	ADJUSTER ARM SPRING (B)	1-0036-411-02	1
74	PINCH ARM (F) SPRING	1-0036-412-01	1
75	PINCH ARM (R) SPRING	1-0036-413-01	1
76	RATCHET SPRING	1-0036-414-01	1
77	SELECTOR GEAR SPRING	1-0036-415-02	1
78	CENTER PLATE SPRING	1-0036-416	1
79	SW CHANGE ARM SPRING	1-0036-417-01	1
80	EARTH SPRING	1-0036-418-01	2
81			
82	TENSION SPRING	1-0036-416-00	2
83			
84			
85	SUB BELT	1-0036-501-00	1
86	SELECTOR LINK	1-0036-503-01	1
87	MAIN BELT	1-0036-504-00	1
88	C.H.CUSHION RUBBER	1-0010-509-02	1
89	RETURN LINK	1-0058-504-02	1
90			
91			
92			
93	MOTOR ASS'Y	3-0058-710-10	(1)
94	SW PWB	1-0036-711-00	1
95	WIRE (A) BRACK	1-0036-702-01	1
96	WIRE (B) RED	1-0036-703-01	1
97	WIRE (C) YELLOW	1-0036-704-01	1
98	HEAD (TC860BH)	1-0036-705-00	1
99	POWER SW	1-0036-711-01	1
100			
101	MUTE SW	1-0058-702	1
102	HEAD CHANGE SW (SL132B)	1-0036-707-02	1
103			
104			
105	E-RING E-1.5	2-171D-040-06	4
106	E-RING E-1.6×3.2×0.3	2-171E-032-96	2
107	E-RING E-2.0	2-1712-050-06	4
108	E-RING E-2.5	2-171K-060-06	3
109			
110			
111	POLY WASHER W/N 1.2×3×0.25	2-1812-030-D2	3
112	POLY WASHER W/N 1.6×3.2×0.25	2-1816-032-D2	4
113	POLY WASHER 2.1×3.2×0.25	2-1821-032-D1	2
114	M/WASHER	1-0012-517-00	1
115			
116	MACHINE+SCREW B-TITE	2-138F-060-H2	1
117	MACHINE+SCREW B-TITE	2-1382-030-H2	4
118	MACHINE+SCREW B-TITE	2-1382-040-H2	2
119	MACHINE+SCREW B-TITE	2-1382-040-H2	1
120			
121	MACHINE+SCREW	2-1032-025-H2	2
122	MACHINE+SCREW	2-1012-040-H2	1
123	MACHINE+SCREW	2-1012-030-S2	1
124	MACHINE+SCREW	2-1022-050-H2	2
125	EJECT HOOK SEREW M2×5	1-0061-522-00	2
126	MACHINE+SCREW S-TITE	2-1332-040-H2	3

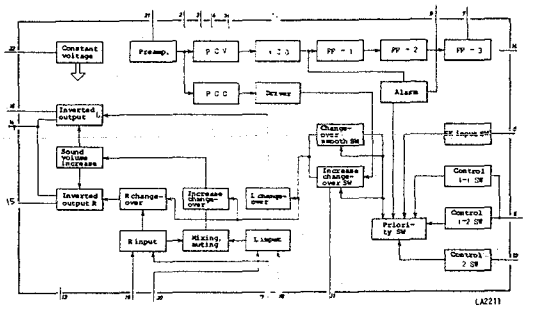
IC. EQUIVALENT CONFIGURATION



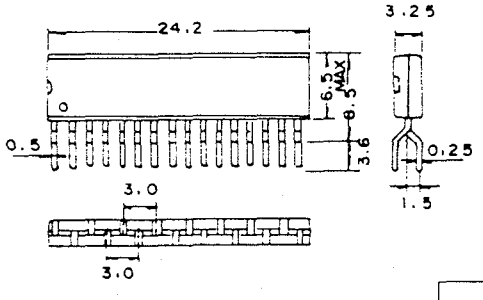


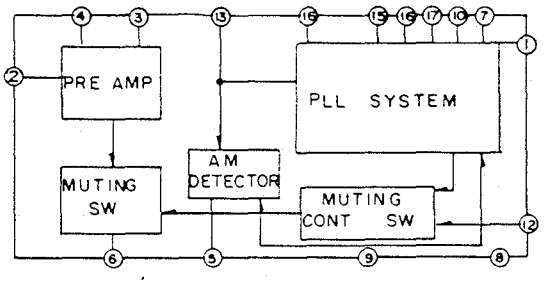
LA4445





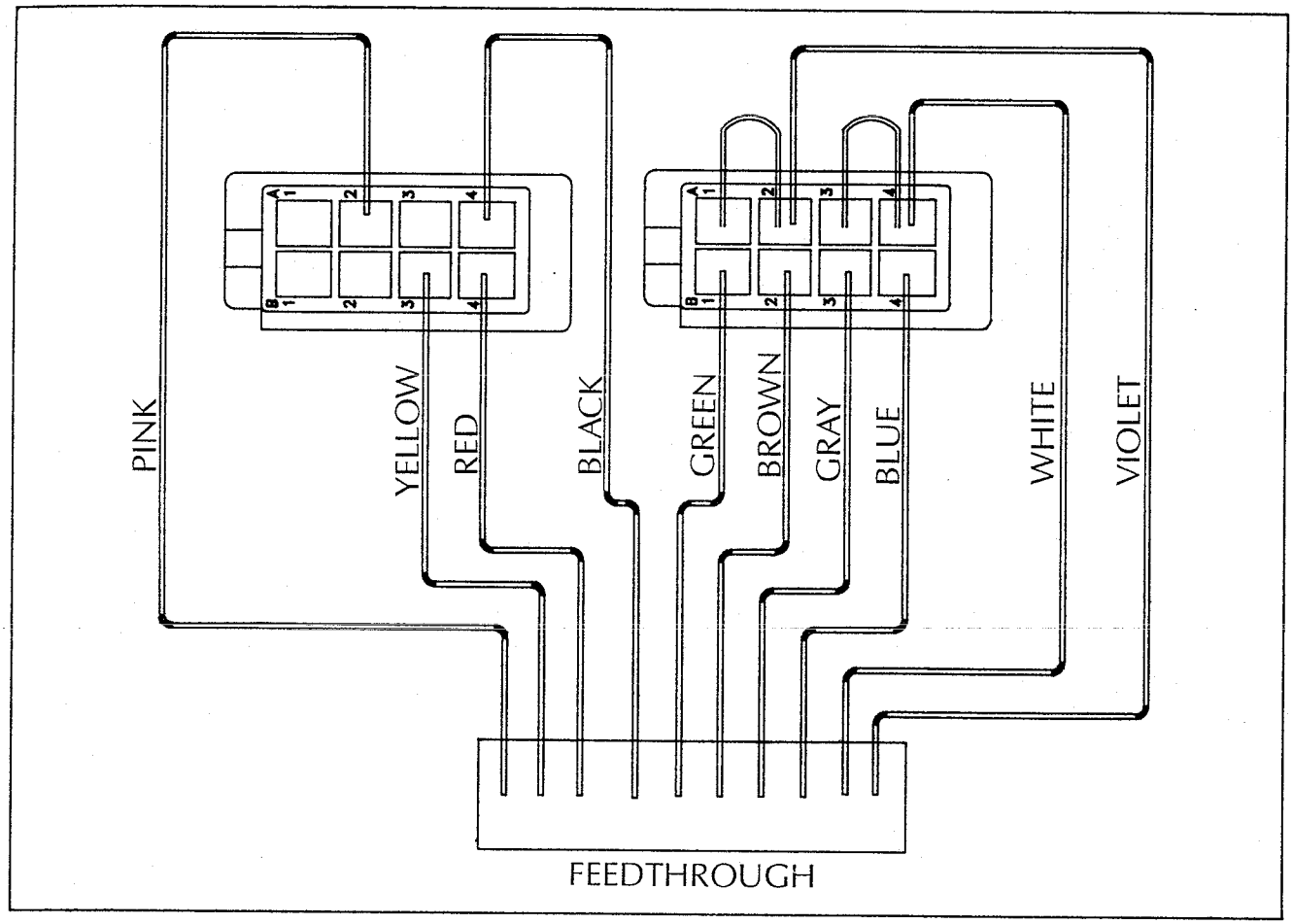
LA2211





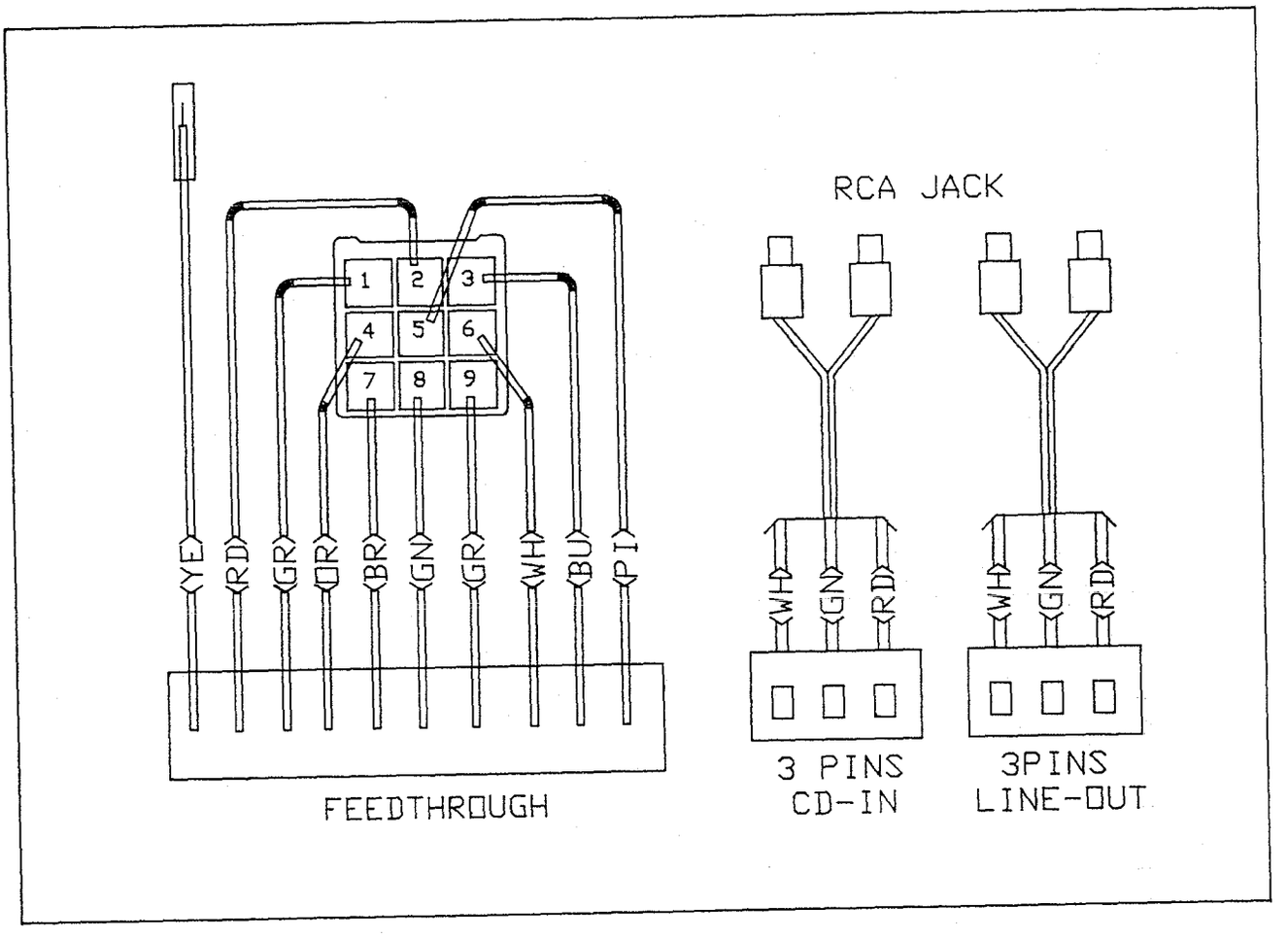
LA2220

8 PINS CONNECTOR(MALE) (GXR-818DT)



NO	CABLE POSITION	NO	CABLE POSITION
A1		A1	RIGHT SPEAKER (-)
A2	MEMORY B+	A2	RIGHT SPEAKER (-)
A3		A3	LEFT SPEAKER (-)
A4	MAIN GND	A4	LEFT SPEAKER (-)
B1		B1	REAR RIGHT SPEAKER (+)
B2		B2	FRONT RIGHT SPEAKER (+)
B3	AUTO ANT	B3	FRONT LEFT SPEAKER (+)
B4	POWER B+ 14.4V (DC)	B4	REAR LEFT SPEAKER (+)

9 PINS CONNECTOR (MALE) (GXR-200,203DT)



NO	CABLE POSITION
1	REAR LEFT SPEAKER (+)
2	POWER B+ 14.4V (DC)
3	REAR RIGHT SPEAKER (+)
4	LEFT SPEAKER (-)
5	MEMORY B+
6	RIGHT SPEAKER (-)
7	FRONT LEFT SPEAKER (+)
8	MAIN GND
9	FRONT RIGHT SPEAKER (+)
	AUTO ANT